



SAR Test Report

Report No.: STS2502323H02

Issued for

Trackimo INC.

680 Central Ave, Cedarhurst, New York 11516, USA

Product Name: GPS Tracker

Brand Name: Tracki, Trackimo

Model Name: TRKM110-C

Series Model(s): N/A

FCC ID: 2AAI6-TRKM110-C

Test Standard: ANSI/IEEE Std. C95.1
FCC 47 CFR Part 2 (2.1093)
IEEE Std. 1528-2013

Max. Report SAR (1g) Body : 1.294 W/kg

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

**TEST REPORT CERTIFICATION****Applicant's name** : Trackimo INC.

Address : 680 Central Ave, Cedarhurst, New York 11516, USA

Manufacturer's Name : Trackimo INC.

Address : 680 Central Ave, Cedarhurst, New York 11516, USA

Product description

Product name : GPS Tracker

Brand name : Tracki, Trackimo

Model name : TRKM110-C

Series Model..... : N/A

ANSI/IEEE Std. C95.1

Standards : FCC 47 CFR Part 2 (2.1093)

IEEE Std. 1528-2013

The device was tested by Shenzhen STS Test Services Co., Ltd. in accordance with the measurement methods and procedures specified in KDB 865664 The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Date of Test

Date (s) of performance of tests : 15 Mar.2025 ~ 19 Mar.2025

Date of Issue..... : 25 Mar.2025

Test Result..... : **Pass**

Testing Engineer :

(Xin.Liu)

Technical Manager :

(Shifan. Long)

Authorized Signatory :

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	25 Mar.2025	STS2502323H02	ALL	Initial Issue



1. General Information

Environmental evaluation measurements of specific absorption rate (SAR) distributions in emulated human head and body tissues exposed to radio frequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).

1.1 EUT Description

Product Name	GPS Tracker
Brand Name	Tracki, Trackimo
Model Name	TRKM110-C
Series Model	N/A
Model Difference	N/A
Battery	Rated Voltage: 3.7V Charge Limit Voltage: 4.2V Capacity: 10500mAh
Device Category	Portable
Product stage	Production unit
RF Exposure Environment	General Population / Uncontrolled
Hardware Version	V0.2
Software Version	W217_VG01_E_T_V04_release_20250426_2030
Frequency Range	LTE Band 2: 1850 ~ 1910 MHz LTE Band 4: 1710 ~ 1755 MHz LTE Band 5: 824 ~ 849 MHz LTE Band 7: 2500 ~2570 MHz LTE Band 12: 700 ~721MHz LTE Band 17: 700 ~721MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz Bluetooth: 2402 MHz to 2480 MHz



Max. Reported SAR(1g): (Limit:1.6W/kg) Test distance: Body:5mm	Band	Mode	Body Worn (W/kg)
	PCB	LTE Band 2	0.868
	PCB	LTE Band 4	0.399
	PCB	LTE Band 5	0.199
	PCB	LTE Band 7	0.737
	PCB	LTE Band 12	0.904
	PCB	LTE Band 17	0.955
	PCB	LTE Band 25	1.294
	PCB	LTE Band 26	0.285
FCC Equipment Class	Licensed Transmitter (PCB)		
Operating Mode:	LTE: QPSK, 16QAM BLE: GFSK		
Antenna Specification:	LTE: FPC Antenna BLE: FPC Antenna		
SIM Card	Only one SIM card is supported		
Hotspot Mode	Not Support		
DTM Mode	Not Support		
Note: 1. Only one SIM card is supported 2. After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 card to perform all tests. 3. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power			



1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required
Temperature (°C)	18-25
Humidity (%RH)	30-70

1.3 Test Factory

Shenzhen STS Test Services Co.,Ltd.

A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration No.: 625569

IC Registration No.: 12108A

A2LA Certificate No.: 4338.01



2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D05 v02r05	SAR for LTE Devices
8	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets

(A). Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

(B). Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

NOTE: Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments:

Are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Occupational/Controlled Environments:

Are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

NOTE

GENERAL POPULATION/UNCONTROLLED EXPOSURE

PARTIAL BODY LIMIT

1.6 W/kg

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dv} \right)$$

SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

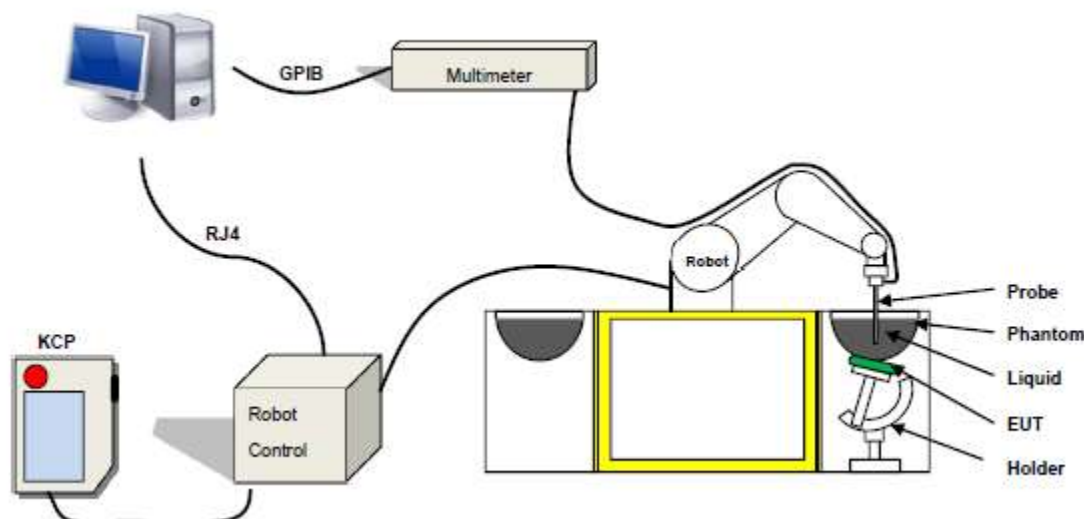
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SAR System

MVG SAR System Diagram:



COMOSAR is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The COMOSAR system consists of the following items:

- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.



The EUT under test operating at the maximum power level is placed in the phone holder, under the phantom, which is filled with head simulating liquid. The E-Field probe measures the electric field inside the phantom. The Open SAR software computes the results to give a SAR value in a 1g or 10g mass.

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 08/21 EPGO352 with following specifications is used

- Probe Length: 330 mm
- Length of Individual Dipoles: 2 mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter: 2.5 mm
- Distance between dipole/probe extremity: 1 mm
- Dynamic range: 0.01-100 W/kg
- Probe linearity: 3%
- Axial Isotropy: < 0.10 dB
- Spherical Isotropy: < 0.10 dB
- Calibration range: 150 MHz to 6 GHz for head & body simulating liquid.
- Angle between probe axis (evaluation axis) and surface normal line: less than 30°



Figure 1-MVG COMOSAR Dosimetric E field Dipole



3.2.2 Phantom

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.

SN 32/14 SAM115



Figure-SN 21/21 ELLI48



3.2.3 Device Holder



The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Head Tissue

Frequency (MHz)	cellulose %	DGBE %	HEC %	NaCl %	Preventol %	Sugar %	X100 %	Water %	Conductivity σ	Permittivity ϵ_r
750	0.2	/	/	1.4	0.2	57.0	/	41.1	0.89	41.9
835	0.2	/	/	1.4	0.2	57.9	/	40.3	0.90	41.5
900	0.2	/	/	1.4	0.2	57.9	/	40.3	0.97	41.5
1800	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
1900	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
2000	/	44.5	/	0.3	/	/	/	55.2	1.4	40.0
2450	/	44.9	/	0.1	/	/	/	55.0	1.80	39.2
2600	/	45.0	/	0.1	/	/	/	54.9	1.96	39.0

Body Tissue

Frequency (MHz)	cellulose %	DGBE %	HEC %	NaCl %	Preventol %	Sugar %	X100 %	Water %	Conductivity σ	Permittivity ϵ_r
750	0.2	/	/	0.9	0.1	47.2	/	51.7	0.96	55.5
835	0.2	/	/	0.9	0.1	48.2	/	50.8	0.97	55.2
900	0.2	/	/	0.9	0.1	48.2	/	50.8	1.05	55.0
1800	/	29.4	/	0.4	/	/	30.45	70.2	1.52	53.3
1900	/	29.4	/	0.4	/	/	30.45	70.2	1.52	53.3
2000	/	29.4	/	0.4	/	/	/	70.2	1.52	53.3
2450	/	31.3	/	0.1	/	/	/	68.6	1.95	52.7
2600	/	31.7	/	0.1	/	/	/	68.2	2.16	52.3

Tissue dielectric parameters for head and body phantoms				
Frequency	ϵ_r		σ S/m	
	Head	Body	Head	Body
300	45.3	58.2	0.87	0.92
450	43.5	56.7	0.87	0.94
900	41.5	55.0	0.97	1.05
1450	40.5	54.0	1.20	1.30
1800	40.0	53.3	1.40	1.52
2450	39.2	52.7	1.80	1.95
3000	38.5	52.0	2.40	2.73
5800	35.3	48.2	5.27	6.00

**LIQUID MEASUREMENT RESULTS**

Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2025-03-15	21.8	45	704	21.5	Permittivity	42.15	42.16	0.03	±5
					Conductivity	0.89	0.87	-1.91	±5
2025-03-15	21.9	45	708	21.5	Permittivity	42.13	42.21	0.20	±5
					Conductivity	0.89	0.90	1.45	±5
2025-03-15	21.9	46	709	21.6	Permittivity	42.12	42.45	0.79	±5
					Conductivity	0.89	0.86	-3.07	±5
2025-03-15	22.0	46	710	21.7	Permittivity	42.11	42.53	0.99	±5
					Conductivity	0.89	0.91	2.55	±5
2025-03-15	22.1	46	711	21.7	Permittivity	42.11	43.21	2.62	±5
					Conductivity	0.89	0.89	0.29	±5
2025-03-15	22.1	46	750	21.8	Permittivity	41.90	42.79	2.12	±5
					Conductivity	0.89	0.88	-1.12	±5
2025-03-16	23.2	43	835	22.9	Permittivity	41.50	41.55	0.12	±5
					Conductivity	0.90	0.94	4.44	±5
2025-03-16	23.2	43	831.5	22.8	Permittivity	41.52	42.01	1.19	±5
					Conductivity	0.90	0.94	4.49	±5
2025-03-16	23.2	44	836.5	23.0	Permittivity	41.49	41.09	-0.97	±5
					Conductivity	0.90	0.88	-2.24	±5
2025-03-17	20.5	44	1732.5	20.1	Permittivity	40.10	41.16	2.65	±5
					Conductivity	1.36	1.39	2.10	±5
2025-03-17	20.6	44	1745	20.3	Permittivity	40.08	40.30	0.55	±5
					Conductivity	1.37	1.35	-1.36	±5
2025-03-17	20.6	45	1800	20.3	Permittivity	40.00	40.83	2.08	±5
					Conductivity	1.40	1.39	-0.71	±5
2025-03-18	21.0	40	1860	20.7	Permittivity	40.00	40.54	1.35	±5
					Conductivity	1.40	1.44	2.86	±5
2025-03-18	21.1	40	1880	20.8	Permittivity	40.00	40.83	2.08	±5
					Conductivity	1.40	1.39	-0.71	±5
2025-03-18	21.2	41	1882.5	20.9	Permittivity	40.00	40.81	2.03	±5
					Conductivity	1.40	1.38	-1.43	±5
2025-03-18	21.2	41	1900	20.9	Permittivity	40.00	41.30	3.25	±5
					Conductivity	1.40	1.37	-2.14	±5
2025-03-18	21.2	41	1905	21.0	Permittivity	40.00	40.70	1.75	±5
					Conductivity	1.40	1.45	3.57	±5



2025-03-19	21.6	45	2535	21.3	Permittivity	39.09	39.93	2.16	±5
					Conductivity	1.89	1.84	-2.68	±5
2025-03-19	21.7	45	2600	21.4	Permittivity	39.00	40.08	2.77	±5
					Conductivity	1.96	1.98	1.02	±5
2025-03-19	21.8	46	2680	21.5	Permittivity	38.89	39.89	2.56	±5
					Conductivity	2.05	2.08	1.69	±5



6. SAR Evaluation Procedures

The procedure for assessing the average SAR value consists of the following steps:

The following steps are used for each test position

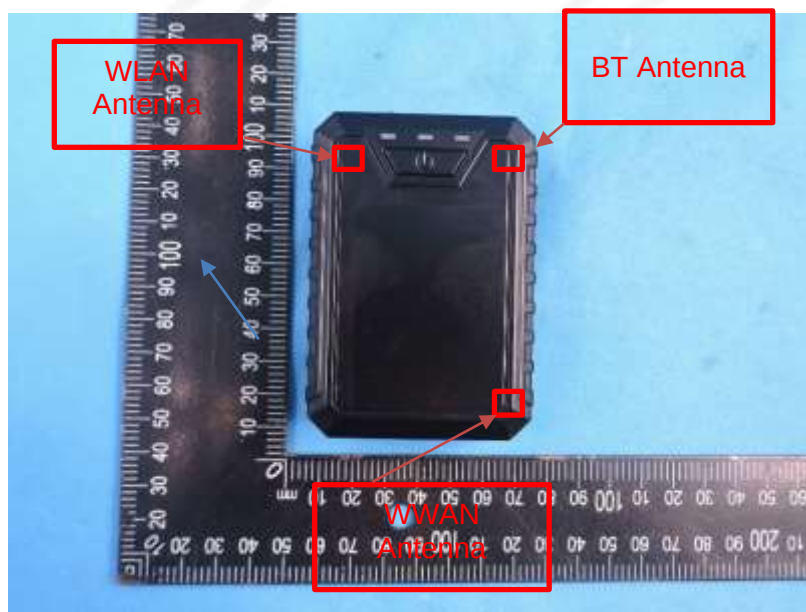
- Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

➤ Area Scan& Zoom Scan

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01 quoted below. When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

7. EUT Antenna Location Sketch

It is a GPS Tracker, support LTE/BT mode.



Antenna Separation Distance(cm)

ANT	Back Side	Front Side	Left Side	Right Side	Top Side	Bottom Side
BT	1.5	≤0.5	5.5	≤0.5	1	7.5
WWAN	1.5	≤0.5	5.5	≤0.5	7.5	1

Note 1: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

**7.1 SAR test exclusion consider table**

The WWAN/WLAN/BT SAR evaluation of Maximum power (dBm) summing tolerance.

Exposure Position	Wireless Interface	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 12
	Calculated Frequency(GHz)	1.88	1.7325	0.844	2.56	0.741
	Maximum Turn-up power (dBm)	22.5	23	23	22	23.5
	Maximum rated power(mW)	177.83	199.53	199.53	158.49	223.87
Back Side	Separation distance (cm)	1.5	1.5	1.5	1.5	1.5
	exclusion threshold(mW)	25.74	26.95	43.40	21.64	47.46
	Testing required?	YES	YES	YES	YES	YES
Front Side	Separation distance (cm)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
	exclusion threshold(mW)	3.39	3.62	9.11	2.65	10.93
	Testing required?	YES	YES	YES	YES	YES
Left Side	Separation distance (cm)	5.5	5.5	5.5	5.5	5.5
	exclusion threshold(mW)	282.80	289.36	274.96	259.36	269.33
	Testing required?	NO	NO	NO	NO	NO
Right Side	Separation distance (cm)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
	exclusion threshold(mW)	3.39	3.62	9.11	2.65	10.93
	Testing required?	YES	YES	YES	YES	YES
Top Side	Separation distance (cm)	7.5	7.5	7.5	7.5	7.5
	exclusion threshold(mW)	501.14	509.94	427.24	469.25	407.63
	Testing required?	NO	NO	NO	NO	NO
Bottom Side	Separation distance (cm)	1	1	1	1	1
	exclusion threshold(mW)	12.18	12.85	24.39	9.97	27.61
	Testing required?	YES	YES	YES	YES	YES



Exposure Position	Wireless Interface	LTE Band 17	LTE Band 25	LTE Band 26	BLE
	Calculated Frequency(GHz)	0.71	1.8825	0.8315	2.48
	Maximum Turn-up power (dBm)	23	22.5	23	-0.5
	Maximum rated power(mW)	199.53	177.83	199.53	0.89
Back Side	Separation distance (cm)	1.5	1.5	1.5	1.5
	exclusion threshold(mW)	48.87	25.72	43.84	22.03
	Testing required?	YES	YES	YES	NO
Front Side	Separation distance (cm)	≤0.5	≤0.5	≤0.5	≤0.5
	exclusion threshold(mW)	11.61	3.39	9.30	2.72
	Testing required?	YES	YES	YES	NO
Left Side	Separation distance (cm)	5.5	5.5	5.5	5.5
	exclusion threshold(mW)	267.50	282.70	274.31	261.68
	Testing required?	NO	NO	NO	NO
Right Side	Separation distance (cm)	≤0.5	≤0.5	≤0.5	≤0.5
	exclusion threshold(mW)	11.61	3.39	9.30	2.72
	Testing required?	YES	YES	YES	NO
Top Side	Separation distance (cm)	7.5	7.5	7.5	1
	exclusion threshold(mW)	401.39	501.00	5201.64	10.17
	Testing required?	NO	NO	NO	NO
Bottom Side	Separation distance (cm)	1	1	1	7.5
	exclusion threshold(mW)	28.75	12.17	24.74	472.43
	Testing required?	YES	YES	YES	NO

**Note:**

1. maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. Per KDB 447498 D04, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D04, if the maximum time-averaged power available does not exceed 1 mW. This stand-alone SAR exemption test.
4. Per KDB 447498 D04, the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);



5. Per KDB 447498 D04, An alternative to the SAR-based exemption is using below table and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in below table to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

RF Source frequency (MHz)	Threshold ERP(watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2f$.
1,500-100,000	$19.2R^2$.

6. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion 8. for each frequency band ,testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode ,thus the SAR can be excluded.
7. Per KDB 616217 D04, SAR evaluation for the front surface of tablet display screens are generally not necessary.
8. Per KDB 248227, as maximum rated power for U-NII-2A>U-NII-1, U-NII-2A was chosen for SAR evaluation. Based on the measurements obtained, SAR measurements on U-NII-1 are not required as highest reported SAR from U-NII-2A band is $\leq 1.2W/Kg$.

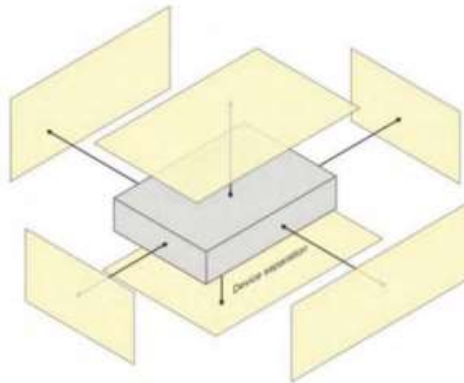
8. EUT Test Position

This EUT was tested in Back Side and Front Side. Front Side. Bottom Side and Right Side.

8.1 Body-worn Position Conditions

Body-worn Position Conditions:

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. When the same wireless transmission configuration is used for testing body-worn accessory and hotspot mode SAR, respectively, in voice and data mode, SAR results for the most conservative *test separation distance* configuration may be used to support both SAR conditions. When the *reported* SAR for a body-worn accessory, measured without a headset connected to the handset, is $> 1.2 \text{ W/kg}$, the highest *reported* SAR configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.





9. Uncertainty

9.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEEE 1528: 2013. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

SATIMO Uncertainty- SN 08/21 EPG0352									
Measurement uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+- %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+- %)	10g Ui (+- %)	vi
Measurement System									
Probe calibration	E.2.1	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	0.71	0.71	0.07	0.07	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.71	0.71	0.42	0.42	∞
Boundary effect	E.2.3	0.80	R	1.73	1.00	1.00	0.46	0.46	∞
Linearity	E.2.4	1.25	R	1.73	1.00	1.00	0.72	0.72	∞
System detection limits	E.2.4	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Modulation response	E.2.5	3.42	R	1.73	1.00	1.00	1.97	1.97	∞
Readout Electronics	E.2.6	0.26	N	1.00	1.00	1.00	0.26	0.26	∞
Response Time	E.2.7	0.17	R	1.73	1.00	1.00	0.10	0.10	∞
Integration Time	E.2.8	1.43	R	1.73	1.00	1.00	0.83	0.83	∞
RF ambient conditions-Noise	E.6.1	3.51	R	1.73	1.00	1.00	2.03	2.03	∞
RF ambient conditions-reflections	E.6.1	3.15	R	1.73	1.00	1.00	1.82	1.82	∞
Probe positioner mechanical tolerance	E.6.2	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.40	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.10	R	1.73	1.00	1.00	1.21	1.21	∞
Test sample Related									
Test sample positioning	E.4.2	3.10	N	1.00	1.00	1.00	3.10	3.10	∞
Device holder uncertainty	E.4.1	3.80	N	1.00	1.00	1.00	3.80	3.80	∞
Output power variation—SAR drift measurement	E.2.9	4.50	R	1.73	1.00	1.00	2.60	2.60	∞
SAR scaling	E.6.5	1.80	R	1.73	1.00	1.00	1.04	1.04	∞
Phantom and tissue parameters									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	3.70	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.90	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	2.40	R	1.73	0.78	0.71	1.08	0.98	M
Liquid permittivity measurement	E.3.3	4.10	N	1.00	0.78	0.71	3.20	2.91	M
Liquid conductivity—temperature uncertainty	E.3.4	2.70	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity—temperature uncertainty	E.3.4	4.80	N	1.00	0.23	0.26	1.10	1.25	∞
Combined Standard Uncertainty			RSS				10.08	9.59	
Expanded Uncertainty (95% Confidence interval)			K=2				19.58	19.18	



SATIMO Uncertainty- SN 08/21 EPG0352									
System Validation uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+ - %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+- %)	10g Ui (+-%)	vi
Measurement System									
Probe calibration	E.2.1	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	1.00	1.00	0.10	0.10	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.00	0.00	0.00	0.00	∞
Boundary effect	E.2.3	0.80	R	1.73	1.00	1.00	0.46	0.46	∞
Linearity	E.2.4	1.25	R	1.73	1.00	1.00	0.72	0.72	∞
System detection limits	E.2.4	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Modulation response	E.2.5	3.42	R	1.73	0.00	0.00	0.00	0.00	∞
Readout Electronics	E.2.6	0.26	N	1.00	1.00	1.00	0.26	0.26	∞
Response Time	E.2.7	0.17	R	1.73	0.00	0.00	0.00	0.00	∞
Integration Time	E.2.8	1.43	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions- Noise	E.6.1	3.51	R	1.73	1.00	1.00	2.03	2.03	∞
RF ambient conditions- reflections	E.6.1	3.15	R	1.73	1.00	1.00	1.82	1.82	∞
Probe positioner mechanical tolerance	E.6.2	1.20	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.40	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	2.10	R	1.73	1.00	1.00	1.21	1.21	∞
System validation source									
Deviation of experimental dipole from numerical dipole	E.6.4	4.80	N	1.00	1.00	1.00	4.80	4.80	∞
Input power and SAR drift measurement	8,6.6.4	5.10	R	1.73	1.00	1.00	2.94	2.94	∞
Dipole axis to liquid distance	8,E.6.6	2.40	R	1.73	1.00	1.00	1.39	1.39	∞
Phantom and set-up									
Phantom shell uncertainty— shape, thickness, and permittivity	E.3.1	3.70	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.90	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity (temperature uncertainty)	E.3.3	2.40	R	1.73	0.78	0.71	1.08	0.98	∞
Liquid conductivity (measured)	E.3.3	4.10	N	1.00	0.78	0.71	3.20	2.91	M
Liquid permittivity (temperature uncertainty)	E.3.4	2.70	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity (measured)	E.3.4	4.80	N	1.00	0.23	0.26	1.10	1.25	M
Combined Standard Uncertainty			RSS				9.72	9.52	
Expanded Uncertainty (95% Confidence interval)			K=2				19.44	19.03	



SATIMO Uncertainty- SN 08/21 EPGO352									
。 System Check uncertainty for DUT averaged over 1 gram / 10 gram.									
Uncertainty Component	Sec.	Tol (+ %)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+ %)	10g Ui (+ %)	vi
Measurement System									
Probe calibration drift	E.2.1.3	5.72	N	1.00	1.00	1.00	5.72	5.72	∞
Axial Isotropy	E.2.2	0.18	R	1.73	0.00	0.00	0.00	0.00	∞
Hemispherical Isotropy	E.2.2	1.04	R	1.73	0.00	0.00	0.00	0.00	∞
Boundary effect	E.2.3	0.8	R	1.73	0.00	0.00	0.00	0.00	∞
Linearity	E.2.4	1.25	R	1.73	0.00	0.00	0.00	0.00	∞
System detection limits	E.2.4	1.20	R	1.73	0.00	0.00	0.00	0.00	∞
Modulation response	E.2.5	3.42	R	1.73	0.00	0.00	0.00	0.00	∞
Readout Electronics	E.2.6	0.26	N	1.00	0.00	0.00	0.00	0.00	∞
Response Time	E.2.7	0.17	R	1.73	0.00	0.00	0.00	0.00	∞
Integration Time	E.2.8	1.43	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions-Noise	E.6.1	3.51	R	1.73	0.00	0.00	0.00	0.00	∞
RF ambient conditions-reflections	E.6.1	3.15	R	1.73	0.00	0.00	0.00	0.00	∞
Probe positioner mechanical tolerance	E.6.2	1.2	R	1.73	1.00	1.00	0.69	0.69	∞
Probe positioning with respect to phantom shell	E.6.3	1.4	R	1.73	1.00	1.00	0.81	0.81	∞
Extrapolation, interpolation, and integrations algorithms for max. SAR evaluation	E.5	3.9	R	1.73	0.00	0.00	0.00	0.00	∞
System check source (dipole)									
Deviation of experimental dipoles	E.6.4	4.8	N	1.00	1.00	1.00	4.80	4.80	∞
Input power and SAR drift measurement	8,6.6.4	5.1	R	1.73	1.00	1.00	2.94	2.94	∞
Dipole axis to liquid distance	8,E.6.6	2.4	R	1.73	1.00	1.00	1.39	1.39	∞
Phantom and tissue parameters									
Phantom shell uncertainty—shape, thickness, and permittivity	E.3.1	3.7	R	1.73	1.00	1.00	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	E.3.2	1.9	N	1.00	1.00	0.84	1.90	1.60	∞
Liquid conductivity measurement	E.3.3	2.4	R	1.73	0.78	0.71	1.08	0.98	∞
Liquid permittivity measurement	E.3.3	4.1	N	1.00	0.78	0.71	3.20	2.91	M
Liquid conductivity—temperature uncertainty	E.3.4	2.7	R	1.73	0.23	0.26	0.36	0.41	∞
Liquid permittivity—temperature uncertainty	E.3.4	4.8	N	1.00	0.23	0.26	1.10	1.25	M
Combined Standard Uncertainty			RSS				5.56	5.20	
Expanded Uncertainty (95% Confidence interval)			K=2				11.12	10.41	



10. Conducted Power Measurement

10.1 Test Result

BLE

BLE				
Mode	Channel Number	Frequency (MHz)	Average Power (dBm)	Output Power (mW)
GFSK(1Mbps)	0	2402	-1.49	0.71
	19	2440	-1.37	0.73
	39	2480	-1.05	0.79

LTE Conducted Power

General Note:

1. Anritsu CMW500 base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05, smaller bandwidth SAR testing is not required.



LTE Band 2

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.6	21.28	21.19
1.4	1	2		21.46	21.34	21.36
1.4	1	5		21.55	21.55	21.21
1.4	3	0		21.54	21.2	21.23
1.4	3	1		21.46	21.15	21.12
1.4	3	2		21.6	21.66	21.28
1.4	6	0		20.73	20.71	20.4
1.4	1	0	16-QAM	20.74	20.12	20.33
1.4	1	2		20.64	20.25	20.47
1.4	1	5		20.76	20.51	20.63
1.4	3	0		20.65	20.29	20.4
1.4	3	1		20.6	20.22	20.27
1.4	3	2		20.75	20.74	20.74
1.4	6	0		19.91	19.79	19.64
3	1	0	QPSK	21.35	21.35	21.32
3	1	7		21.15	21.37	21.09
3	1	14		21.19	21.28	21.09
3	8	0		20.61	20.74	21.03
3	8	4		20.54	20.6	20.72
3	8	7		20.64	20.78	20.6
3	15	0		20.57	20.75	20.74
3	1	0	16-QAM	20.67	20.47	20.71
3	1	7		20.52	20.51	20.76
3	1	14		20.6	20.38	20.79
3	8	0		19.8	19.82	20.11
3	8	4		19.62	19.69	19.8
3	8	7		19.74	19.87	19.68
3	15	0		19.55	19.68	19.92



LTE BAND 2

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.59	21.68	21.73
5	1	12		21.56	21.85	21.45
5	1	24		21.37	21.71	21.03
5	12	0		20.8	20.69	20.68
5	12	6		20.77	20.69	20.45
5	12	11		20.98	20.75	20.95
5	25	0		20.79	20.83	20.81
5	1	0		21.23	20.85	21.16
5	1	12	16-QAM	20.99	21.07	20.65
5	1	24		21.07	21.03	20.65
5	12	0		19.86	19.94	19.87
5	12	6		19.83	19.93	19.63
5	12	11		20.05	20	20.9
5	25	0		19.85	19.96	20.49
10	1	0	QPSK	21.79	22.18	22.54
10	1	24		21.54	21.95	22.32
10	1	49		21.44	21.83	22.12
10	25	0		20.95	21.34	21.87
10	25	12		20.76	21.37	22.1
10	25	24		21.28	21.45	21.81
10	50	0		21.21	21.42	21.61
10	1	0		N/A	N/A	N/A
10	1	24	16-QAM	N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE BAND 2

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.27	22.13	21.83
15	1	37		22.21	22.13	22.19
15	1	74		21.93	22.01	21.78
15	36	0		20.94	21.18	21.55
15	36	18		20.75	21.08	21.56
15	36	39		21.53	20.98	21.61
15	75	0		21.33	21.04	21.38
15	1	0	16-QAM	N/A	N/A	N/A
15	1	38		N/A	N/A	N/A
15	1	75		N/A	N/A	N/A
15	36	0		N/A	N/A	N/A
15	36	18		N/A	N/A	N/A
15	36	39		N/A	N/A	N/A
15	75	0		N/A	N/A	N/A
20	1	0	QPSK	21.99	22.37	21.61
20	1	49		21.97	21.68	21.98
20	1	99		21.69	21.81	21.4
20	50	0		20.97	22.6	21.4
20	50	24		20.8	21.35	21.47
20	50	49		21.31	21.61	21.48
20	100	0		20.85	21.45	21.56
20	1	0	16-QAM	N/A	N/A	N/A
20	1	49		N/A	N/A	N/A
20	1	99		N/A	N/A	N/A
20	50	0		N/A	N/A	N/A
20	50	24		N/A	N/A	N/A
20	50	49		N/A	N/A	N/A
20	100	0		N/A	N/A	N/A



LTE BAND 4

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.1	21.73	22.01
1.4	1	2		21.99	21.66	21.99
1.4	1	5		22.17	21.72	22.12
1.4	3	0		21.94	21.52	22.03
1.4	3	1		21.85	21.5	21.97
1.4	3	2		22.12	21.76	22.26
1.4	6	0		20.99	20.92	21.11
1.4	1	0	16-QAM	21.21	20.45	21.07
1.4	1	2		21.17	20.45	21.04
1.4	1	5		21.4	20.79	21.16
1.4	3	0		21.05	20.57	21.12
1.4	3	1		20.99	20.54	21.05
1.4	3	2		21.27	21.04	21.36
1.4	6	0		20.04	20	20.39
3	1	0	QPSK	21.79	21.68	22.2
3	1	7		21.74	21.55	22.14
3	1	14		21.94	21.8	22.07
3	8	0		21.05	20.88	21.62
3	8	4		20.81	20.82	21.46
3	8	7		20.95	21.01	21.64
3	15	0		20.9	20.82	21.4
3	1	0	16-QAM	21.05	20.88	21.65
3	1	7		21.08	20.85	21.64
3	1	14		21.31	20.96	21.59
3	8	0		20.24	19.93	20.66
3	8	4		20	19.92	20.49
3	8	7		20.13	20.06	20.67
3	15	0		19.94	19.69	20.49



LTE BAND 4

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.15	21.95	22.19
5	1	12		22.27	21.85	22.27
5	1	24		22.11	21.57	22.19
5	12	0		21.03	20.86	21.29
5	12	6		21.02	21.09	21.4
5	12	11		21.22	21.13	21.61
5	25	0		21.07	21.04	21.46
5	1	0	16-QAM	21.42	21.12	21.4
5	1	12		21.61	21.28	21.56
5	1	24		21.47	21.01	21.55
5	12	0		20.03	19.98	20.4
5	12	6		20.04	20.21	20.52
5	12	11		20.23	20.25	20.75
5	25	0		20.08	20.04	20.5
10	1	0	QPSK	22.18	21.99	21.67
10	1	24		22.2	22.16	22.15
10	1	49		22.14	21.94	22.24
10	25	0		21.14	20.91	21.19
10	25	12		21.03	21.09	21.3
10	25	24		21.27	21.53	21.69
10	50	0		21.07	21.17	21.38
10	1	0	16-QAM	N/A	N/A	N/A
10	1	24		N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE BAND 4

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.32	22.19	22.02
15	1	37		22.34	21.9	22.07
15	1	74		21.98	21.95	22.54
15	36	0		21.17	21.19	21.23
15	36	18		21.23	21.45	21.26
15	36	39		21.36	21.37	21.52
15	75	0		21.26	21.1	21.24
15	1	0	16-QAM	N/A	N/A	N/A
15	1	38		N/A	N/A	N/A
15	1	75		N/A	N/A	N/A
15	36	0		N/A	N/A	N/A
15	36	18		N/A	N/A	N/A
15	36	39		N/A	N/A	N/A
15	75	0		N/A	N/A	N/A
20	1	0	QPSK	22.26	22.63	22.23
20	1	49		22.33	22.13	21.93
20	1	99		21.82	21.76	22.28
20	50	0		21.29	21.08	21.19
20	50	24		21.18	21.54	21.05
20	50	49		21.28	21.38	21.69
20	100	0		21.19	21.24	21.22
20	1	0	16-QAM	N/A	N/A	N/A
20	1	49		N/A	N/A	N/A
20	1	99		N/A	N/A	N/A
20	50	0		N/A	N/A	N/A
20	50	24		N/A	N/A	N/A
20	50	49		N/A	N/A	N/A
20	100	0		N/A	N/A	N/A



LTE BAND 5

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.38	22.86	22.67
1.4	1	2		22.2	22.72	22.57
1.4	1	5		22.23	22.67	22.68
1.4	3	0		22.21	22.81	22.68
1.4	3	1		22.09	22.77	22.64
1.4	3	2		22.23	22.8	22.69
1.4	6	0		21.29	21.75	21.67
1.4	1	0	16-QAM	21.59	21.76	21.84
1.4	1	2		21.46	21.67	21.72
1.4	1	5		21.53	21.66	21.8
1.4	3	0		21.39	21.98	21.94
1.4	3	1		21.29	21.91	21.88
1.4	3	2		21.45	21.94	21.9
1.4	6	0		20.57	21.03	20.94
3	1	0	QPSK	22.18	22.58	22.48
3	1	7		21.85	22.51	22.63
3	1	14		21.67	22.55	22.36
3	8	0		21.38	21.95	21.76
3	8	4		21.04	21.7	21.68
3	8	7		21	21.79	21.9
3	15	0		20.85	21.6	21.62
3	1	0	16-QAM	21.37	21.77	21.76
3	1	7		21.11	21.71	21.95
3	1	14		20.92	21.69	21.69
3	8	0		20.52	21.1	20.82
3	8	4		20.18	20.84	20.73
3	8	7		20.15	20.93	20.94
3	15	0		19.9	20.57	20.8



LTE BAND 5

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.11	22.42	22.01
5	1	12		21.75	22.53	22.63
5	1	24		21.45	22.43	22.49
5	12	0		20.9	21.75	21.35
5	12	6		20.69	21.76	21.69
5	12	11		20.74	21.53	21.59
5	25	0		20.76	21.48	21.43
5	1	0	16-QAM	21.44	21.64	21.06
5	1	12		21.18	21.8	21.76
5	1	24		20.88	21.7	21.67
5	12	0		19.99	20.94	20.55
5	12	6		19.8	20.93	20.89
5	12	11		19.85	20.7	20.8
5	25	0		19.9	20.68	20.54
10	1	0	QPSK	21.94	21.94	22.52
10	1	24		21.42	22.63	22.1
10	1	49		22.07	21.89	22.88
10	25	0		20.69	21.63	21.19
10	25	12		20.52	21.92	20.9
10	25	24		20.76	21.87	21.55
10	50	0		20.67	21.9	21.41
10	1	0	16-QAM	N/A	N/A	N/A
10	1	24		N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE BAND 7

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	20.97	20.96	20.6
5	1	12		21.05	20.9	20.69
5	1	24		21.15	21.16	20.49
5	12	0		20.04	20.38	19.54
5	12	6		20.07	20.52	19.45
5	12	11		20.23	20.14	19.99
5	25	0		20.12	19.93	19.85
5	1	0	16-QAM	20.22	20.25	19.59
5	1	12		20.33	20.12	19.77
5	1	24		20.46	20.35	19.76
5	12	0		19	19.5	18.72
5	12	6		19.05	19.63	18.6
5	12	11		19.21	19.25	19.16
5	25	0		19.12	18.95	18.95
10	1	0	QPSK	21.06	20.81	21.44
10	1	24		21.33	20.87	21.43
10	1	49		21.37	21.49	21.2
10	25	0		20.17	20.11	20.72
10	25	12		20.21	20.14	20.45
10	25	24		20.41	20.5	20.72
10	50	0		20.28	19.95	20.42
10	1	0	16-QAM	N/A	N/A	N/A
10	1	24		N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	21.52	21.55	21.98
15	1	37		21.74	21.16	21.32
15	1	74		21.49	21.42	20.79
15	36	0		20.51	20.61	20.66
15	36	18		20.6	20.71	20.2
15	36	39		20.77	20.67	20.34
15	75	0		20.65	20.25	20.35
15	1	0	16-QAM	N/A	N/A	N/A
15	1	38		N/A	N/A	N/A
15	1	75		N/A	N/A	N/A
15	36	0		N/A	N/A	N/A
15	36	18		N/A	N/A	N/A
15	36	39		N/A	N/A	N/A
15	75	0		N/A	N/A	N/A
20	1	0	QPSK	21.15	21.37	21.94
20	1	49		21.64	21.76	21.44
20	1	99		21.21	21.57	20.68
20	50	0		20.37	20.3	20.89
20	50	24		20.57	20.45	20.53
20	50	49		20.84	20.95	20.31
20	100	0		20.58	20.12	20.73
20	1	0	16-QAM	N/A	N/A	N/A
20	1	49		N/A	N/A	N/A
20	1	99		N/A	N/A	N/A
20	50	0		N/A	N/A	N/A
20	50	24		N/A	N/A	N/A
20	50	49		N/A	N/A	N/A
20	100	0		N/A	N/A	N/A



LTE BAND 12

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.38	23.07	22.8
1.4	1	2		23.2	22.94	22.75
1.4	1	5		23.12	23.05	22.55
1.4	3	0		23.21	23.04	22.7
1.4	3	1		23.08	22.99	22.58
1.4	3	2		23.24	23.13	22.74
1.4	6	0		22.42	22.19	21.89
1.4	1	0	16-QAM	22.55	21.94	21.97
1.4	1	2		22.45	21.88	21.9
1.4	1	5		22.41	22.03	21.71
1.4	3	0		22.39	22.15	21.97
1.4	3	1		22.29	22.1	21.83
1.4	3	2		22.46	22.24	21.98
1.4	6	0		21.57	21.37	21.17
3	1	0	QPSK	23.19	22.79	22.96
3	1	7		22.84	22.88	22.57
3	1	14		22.74	22.88	22.55
3	8	0		22.38	22.03	22.22
3	8	4		22.04	21.99	21.8
3	8	7		22	22.34	21.61
3	15	0		21.98	21.97	21.72
3	1	0	16-QAM	22.34	22.01	22.24
3	1	7		22.11	22.08	21.91
3	1	14		22.06	22.02	21.91
3	8	0		21.5	21.2	21.31
3	8	4		21.17	21.15	20.88
3	8	7		21.13	21.49	20.69
3	15	0		21	20.98	20.95



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.12	22.59	23.28
5	1	12		22.76	22.88	22.96
5	1	24		22.57	23.09	22.54
5	12	0		21.78	21.85	21.91
5	12	6		21.58	22.11	21.61
5	12	11		21.74	22.06	21.99
5	25	0		21.77	21.92	21.8
5	1	0	16-QAM	22.43	21.9	22.36
5	1	12		22.16	22.23	22.11
5	1	24		21.99	22.41	21.74
5	12	0		20.87	21.03	21.1
5	12	6		20.67	21.29	20.79
5	12	11		20.83	21.23	21.21
5	25	0		20.89	21.01	20.95
10	1	0	QPSK	23.01	23.41	22.72
10	1	24		22.49	22.85	23.19
10	1	49		22.82	22.85	22.65
10	25	0		21.6	21.81	22.29
10	25	12		21.42	22.22	22.61
10	25	24		21.72	21.92	22.21
10	50	0		21.77	21.88	22
10	1	0	16-QAM	N/A	N/A	N/A
10	1	24		N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE BAND 17

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.72	22.87	23.01
5	1	12		22.71	22.83	22.81
5	1	24		23	22.82	22.47
5	12	0		21.8	22.27	21.95
5	12	6		21.98	22.56	21.64
5	12	11		21.92	21.97	21.92
5	25	0		21.75	21.97	21.69
5	1	0	16-QAM	22.03	22.15	22.05
5	1	12		22.07	22.15	21.92
5	1	24		22.39	22.13	21.66
5	12	0		20.84	21.43	21.11
5	12	6		21.02	21.69	20.8
5	12	11		20.96	21.12	21.11
5	25	0		20.81	21.02	20.81
10	1	0	QPSK	22.39	22.4	22.68
10	1	24		22.89	22.94	22.93
10	1	49		22.57	22.2	22.06
10	25	0		21.86	22.04	22.26
10	25	12		22.37	22.52	22.56
10	25	24		21.79	21.75	21.69
10	50	0		21.72	21.72	21.72
10	1	0	16-QAM	N/A	N/A	N/A
10	1	24		N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE BAND 25

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.88	21.61	21.46
1.4	1	2		21.67	21.39	21.43
1.4	1	5		21.74	21.63	21.56
1.4	3	0		21.79	21.47	21.44
1.4	3	1		21.69	21.42	21.38
1.4	3	2		21.82	21.56	21.68
1.4	6	0		20.74	20.54	20.68
1.4	1	0	16-QAM	21.02	20.41	20.49
1.4	1	2		20.87	20.25	20.46
1.4	1	5		20.97	20.51	20.61
1.4	3	0		20.91	20.55	20.53
1.4	3	1		20.84	20.49	20.46
1.4	3	2		20.98	20.61	20.74
1.4	6	0		19.85	19.66	19.92
3	1	0	QPSK	21.76	21.59	21.2
3	1	7		21.34	21.4	21.31
3	1	14		21.45	21.67	21.63
3	8	0		20.99	20.92	20.76
3	8	4		20.77	20.71	20.5
3	8	7		20.88	20.95	20.64
3	15	0		20.43	20.79	20.57
3	1	0	16-QAM	20.88	20.91	20.26
3	1	7		20.81	20.71	20.39
3	1	14		20.96	20.99	20.66
3	8	0		20.04	20.02	19.84
3	8	4		19.85	19.73	19.56
3	8	7		19.97	19.98	19.69
3	15	0		19.43	19.73	19.47



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.8	21.78	21
5	1	12		21.56	21.69	21.62
5	1	24		21.49	21.52	21.73
5	12	0		20.73	20.57	20.09
5	12	6		20.7	20.54	20.02
5	12	11		20.97	20.79	20.7
5	25	0		20.59	20.63	20.58
5	1	0	16-QAM	21.39	20.94	20.31
5	1	12		20.94	20.89	20.71
5	1	24		21.18	20.72	20.89
5	12	0		19.76	19.7	19.24
5	12	6		19.74	19.67	19.17
5	12	11		19.99	19.93	19.85
5	25	0		19.65	19.63	19.67
10	1	0	QPSK	21.76	21.92	21.96
10	1	24		21.72	21.97	21.29
10	1	49		21.53	21.69	21.95
10	25	0		20.75	20.77	20.47
10	25	12		20.65	20.76	20.25
10	25	24		21.04	20.91	21.18
10	50	0		20.79	20.91	20.63
10	1	0	16-QAM	N/A	N/A	N/A
10	1	24		N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	21.94	22.22	22.39
15	1	37		21.8	21.8	21.51
15	1	74		22.05	22.17	21.99
15	36	0		20.72	21.08	21.67
15	36	18		20.67	20.87	21.11
15	36	39		21.12	21.48	21.43
15	75	0		21.05	20.78	21.05
15	1	0	16-QAM	N/A	N/A	N/A
15	1	38		N/A	N/A	N/A
15	1	75		N/A	N/A	N/A
15	36	0		N/A	N/A	N/A
15	36	18		N/A	N/A	N/A
15	36	39		N/A	N/A	N/A
15	75	0		N/A	N/A	N/A
20	1	0	QPSK	21.88	22.45	21.87
20	1	49		21.96	22.03	22.03
20	1	99		22.14	21.66	21.89
20	50	0		21.07	21.76	21.78
20	50	24		21.02	21.61	21.64
20	50	49		21.47	21.86	21.79
20	100	0		20.99	21.36	21.28
20	1	0	16-QAM	N/A	N/A	N/A
20	1	49		N/A	N/A	N/A
20	1	99		N/A	N/A	N/A
20	50	0		N/A	N/A	N/A
20	50	24		N/A	N/A	N/A
20	50	49		N/A	N/A	N/A
20	100	0		N/A	N/A	N/A



LTE Band 26-1 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.29	23.01	22.55
1.4	1	2		21.99	22.87	22.55
1.4	1	5		21.91	22.8	22.52
1.4	3	0		22.13	22.97	22.57
1.4	3	1		21.99	22.93	22.51
1.4	3	2		22.03	22.96	22.75
1.4	6	0		21.22	22.04	21.75
1.4	1	0	16-QAM	21.52	21.94	21.72
1.4	1	2		21.28	21.87	21.71
1.4	1	5		21.24	21.82	21.67
1.4	3	0		21.34	22.16	21.8
1.4	3	1		21.25	22.09	21.73
1.4	3	2		21.3	22.11	21.97
1.4	6	0		20.43	21.22	21.04
3	1	0	QPSK	22.32	22.99	22.62
3	1	7		21.76	22.84	22.75
3	1	14		21.47	22.51	22.45
3	8	0		21.18	22.16	21.91
3	8	4		20.85	21.91	21.82
3	8	7		20.81	22	22.03
3	15	0		20.79	21.8	21.77
3	1	0	16-QAM	21.52	22.17	21.91
3	1	7		21.03	22.03	22.08
3	1	14		20.72	21.65	21.79
3	8	0		20.33	21.32	20.98
3	8	4		20	21.07	20.89
3	8	7		19.97	21.15	21.08
3	15	0		19.84	20.79	20.95



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.42	22.97	22.12
5	1	12		21.73	22.88	22.78
5	1	24		21.09	22.2	22.6
5	12	0		21.11	22.12	21.51
5	12	6		21.01	22.13	21.87
5	12	11		20.37	21.54	21.64
5	25	0		20.75	21.74	21.61
5	1	0	16-QAM	21.77	22.28	21.19
5	1	12		21.15	22.23	21.93
5	1	24		20.51	21.54	21.79
5	12	0		20.21	21.33	20.73
5	12	6		20.13	21.3	21.07
5	12	11		19.49	20.72	20.85
5	25	0		19.89	20.82	20.73
10	1	0	QPSK	22.36	22.48	22.1
10	1	24		21.52	23.06	21.9
10	1	49		22.22	21.91	22.6
10	25	0		21.02	21.99	20.93
10	25	12		20.86	22.16	20.7
10	25	24		20.87	21.49	21.41
10	50	0		20.67	21.23	21.11
10	1	0	16-QAM	N/A	N/A	N/A
10	1	24		N/A	N/A	N/A
10	1	49		N/A	N/A	N/A
10	25	0		N/A	N/A	N/A
10	25	12		N/A	N/A	N/A
10	25	24		N/A	N/A	N/A
10	50	0		N/A	N/A	N/A



LTE BAND 26-2

LTE Band 26-2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	21.71	21.35	22.61
1.4	1	2		21.8	22.63	21.93
1.4	1	5		22.1	21.18	22.49
1.4	3	0		20.65	21.44	21.26
1.4	3	1		21.14	21.56	20.86
1.4	3	2		21.25	20.88	21.08
1.4	6	0		20.84	20.57	21.2
1.4	1	0	16-QAM	N/A	N/A	N/A
1.4	1	2		N/A	N/A	N/A
1.4	1	5		N/A	N/A	N/A
1.4	3	0		N/A	N/A	N/A
1.4	3	1		N/A	N/A	N/A
1.4	3	2		N/A	N/A	N/A
1.4	6	0		N/A	N/A	N/A
3	1	0	QPSK	21.71	21.35	22.61
3	1	7		21.8	22.63	21.93
3	1	14		22.1	21.18	22.49
3	8	0		20.65	21.44	21.26
3	8	4		21.14	21.56	20.86
3	8	7		21.25	20.88	21.08
3	15	0		20.84	20.57	21.2
3	1	0	16-QAM	N/A	N/A	N/A
3	1	7		N/A	N/A	N/A
3	1	14		N/A	N/A	N/A
3	8	0		N/A	N/A	N/A
3	8	4		N/A	N/A	N/A
3	8	7		N/A	N/A	N/A
3	15	0		N/A	N/A	N/A



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.63	23.03	22.78
5	1	12		22.46	22.93	22.57
5	1	24		22.47	23	22.54
5	12	0		22.51	22.97	22.76
5	12	6		22.45	22.95	22.67
5	12	11		22.61	23.06	22.71
5	25	0		21.6	22.11	21.87
5	1	0	16-QAM	21.81	21.87	21.92
5	1	12		21.71	21.85	21.71
5	1	24		21.75	21.95	21.67
5	12	0		21.7	22.11	21.95
5	12	6		21.66	22.08	21.84
5	12	11		21.83	22.18	21.88
5	25	0		20.75	21.29	21.18
10	1	0	QPSK	22.43	22.77	23.27
10	1	24		22.38	22.84	22.89
10	1	49		22.46	22.94	22.47
10	25	0		21.55	22.09	22.15
10	25	12		21.45	21.94	21.93
10	25	24		21.75	22.23	21.94
10	50	0		21.55	21.89	21.84
10	1	0	16-QAM	21.71	21.97	22.57
10	1	24		21.71	22.04	22.23
10	1	49		21.7	22.08	21.84
10	25	0		20.68	21.24	21.23
10	25	12		20.58	21.1	21.01
10	25	24		20.88	21.38	21.01
10	50	0		20.58	20.88	21.05



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.36	22.85	23.20
15	1	38		22.53	23.04	22.95
15	1	74		22.68	22.75	22.26
15	38	0		21.62	21.98	22.25
15	38	18		21.89	22.19	22.22
15	38	37		21.59	21.95	21.65
15	75	0		21.57	21.88	21.86
15	1	0	16-QAM	21.69	21.91	22.58
15	1	38		21.89	22.14	22.38
15	1	74		22.00	21.90	21.68
15	12	0		20.91	21.19	21.35
15	12	18		21.18	21.38	21.32
15	12	37		20.87	21.17	20.75
15	25	0		20.72	20.99	20.98



11. EUT and Test Setup Photo

11.1 EUT Photo

Front side

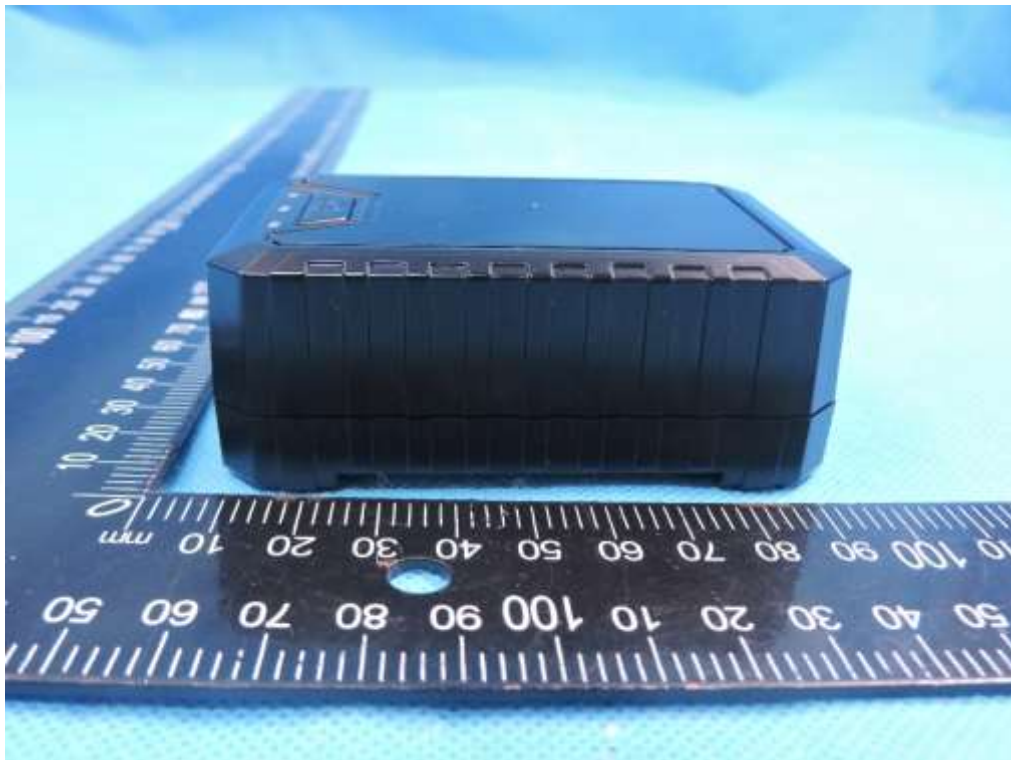


Back side

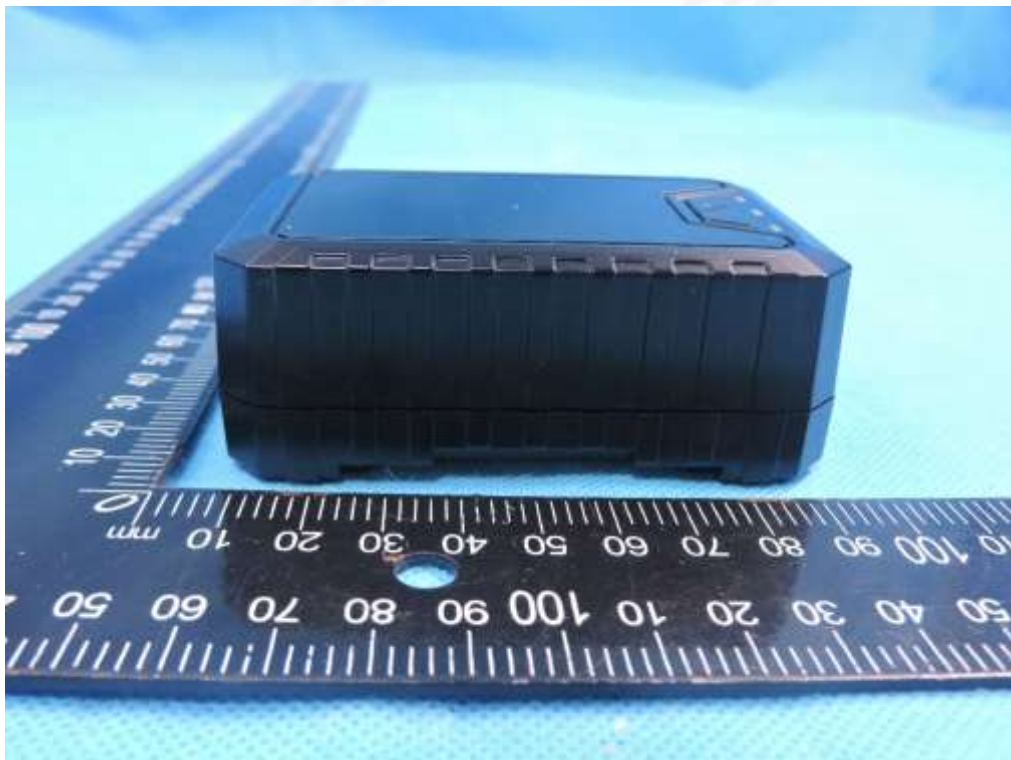




Left Edge

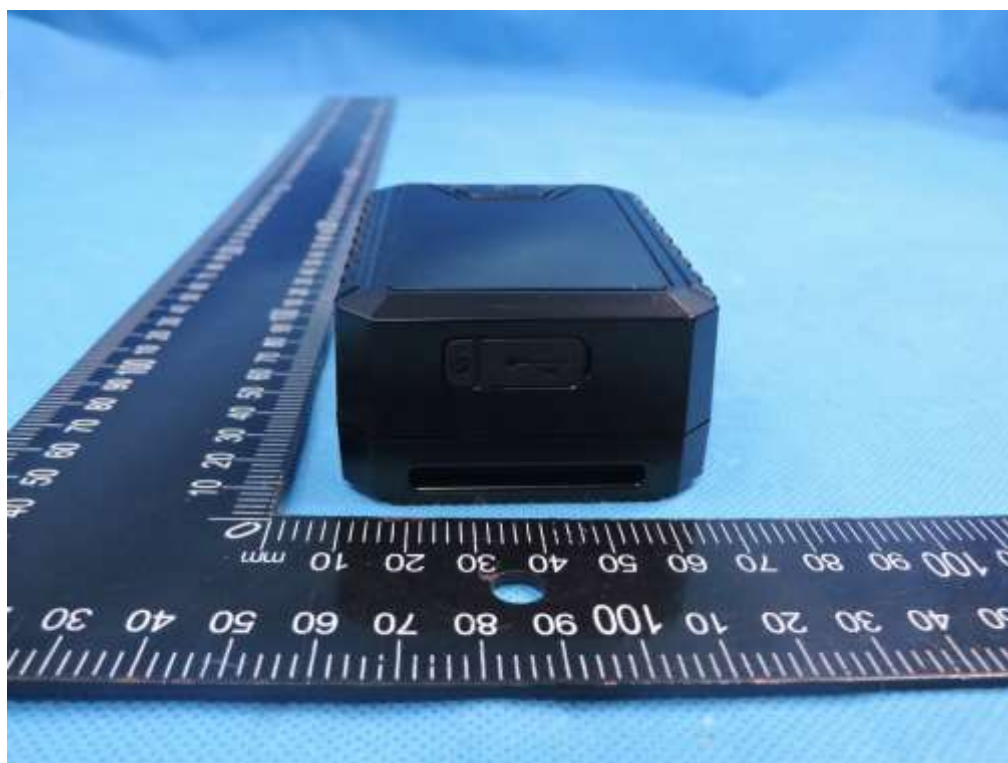


Right Edge

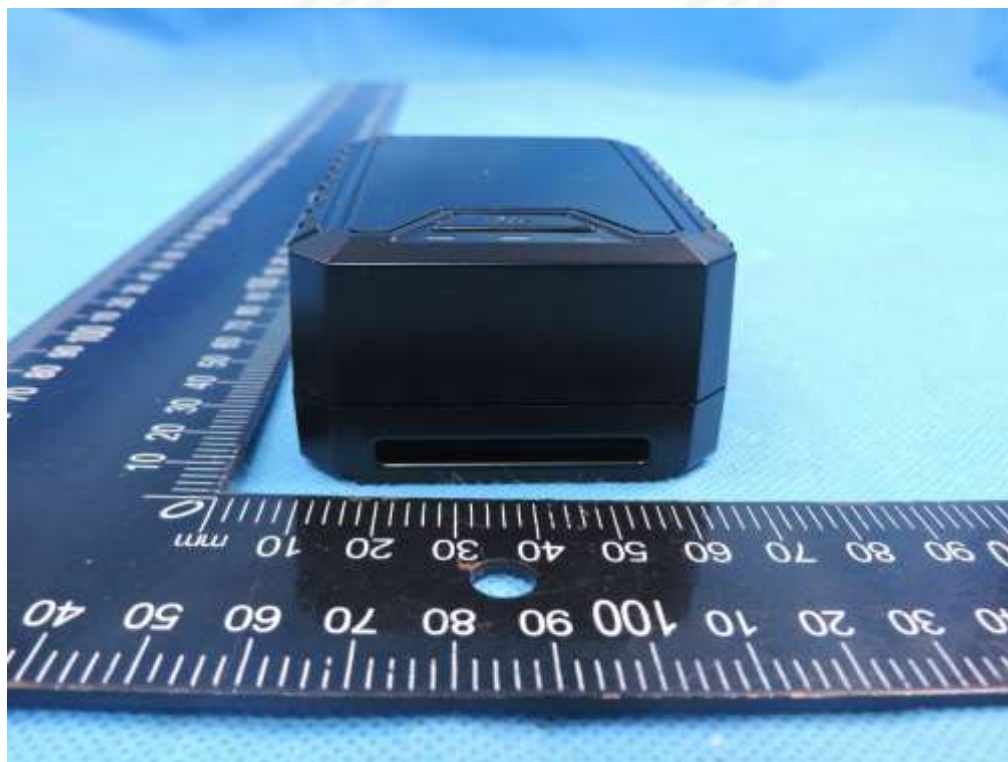




Top Edge

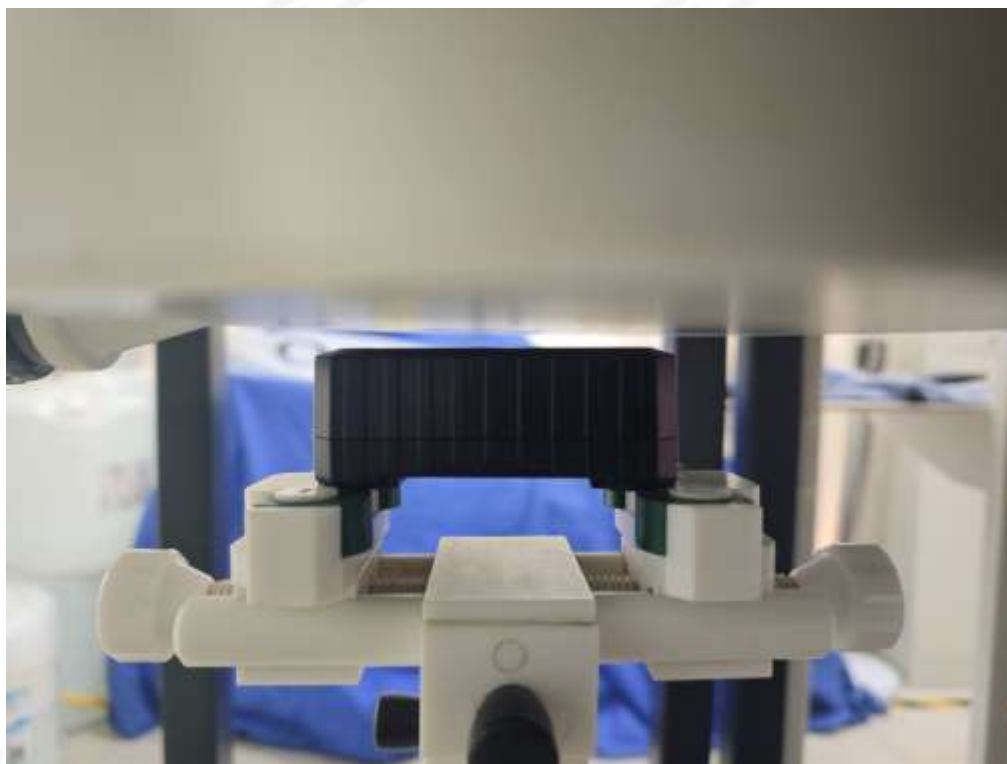


Bottom Edge

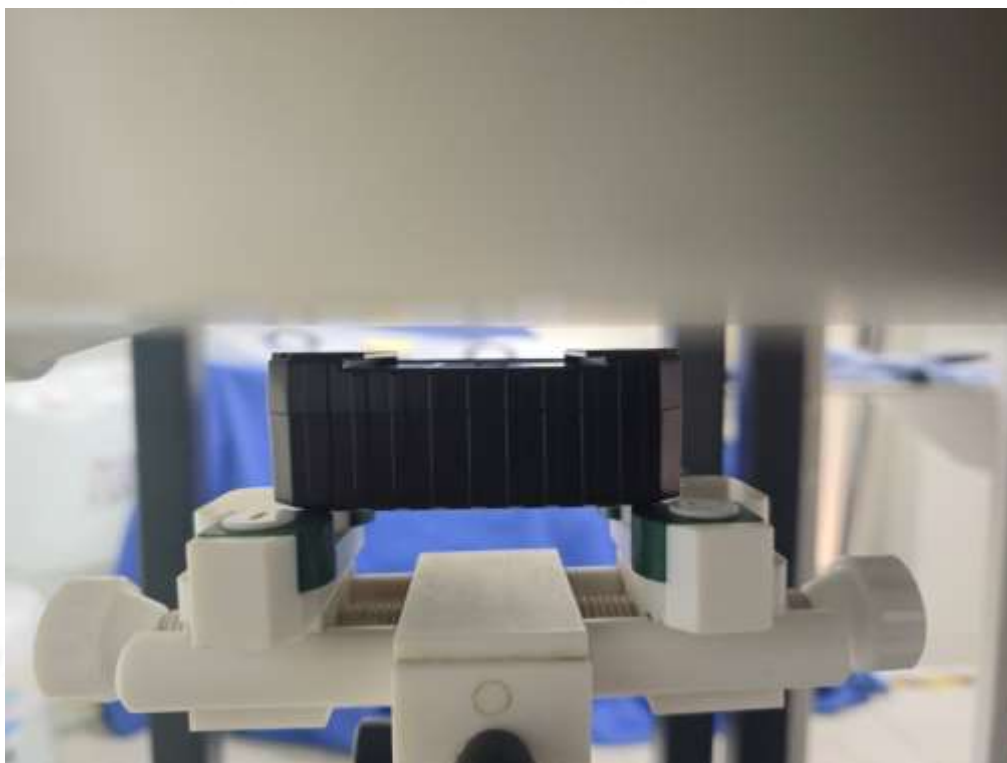


11.2 Setup Photo

Body Front side(separation distance is 5mm)



Body Back side(separation distance is 5mm)





Body Left side(separation distance is 5mm)



Body Right side(separation distance is 5mm)





Body Bottom side(separation distance is 5mm)

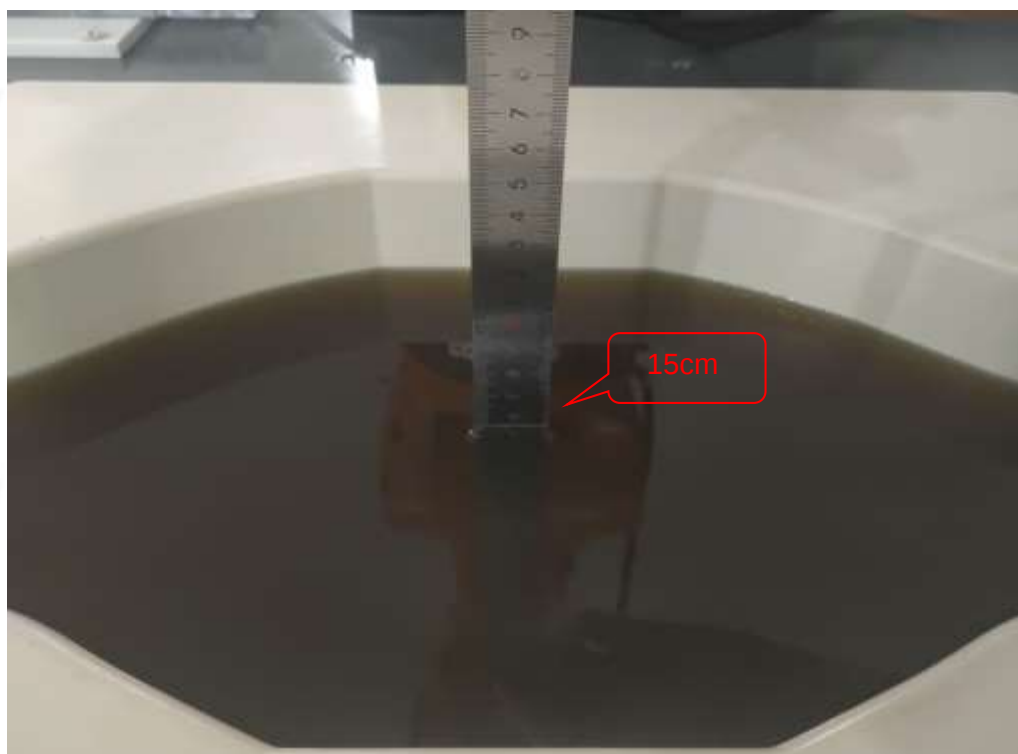


Body Top side(separation distance is 5mm)





Liquid depth (15 cm)





12. SAR Result Summary

12.1 Body-worn and Hotspot SAR

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaling Factor	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Front side	1860	0.752	-1.40	22.5	21.99	1.125	0.846	/
			1	0	Front side	1880	0.842	-0.77	22.5	22.37	1.030	0.868	1
			1	0	Front side	1900	0.738	1.35	22.5	21.98	1.127	0.832	/
			50	0	Front side	1900	0.789	3.05	23	22.6	1.096	0.865	/
			1	0	Back Side	1880	0.353	-0.21	22.5	22.37	1.030	0.364	/
			50	0	Back Side	1900	0.331	1.53	23	22.6	1.096	0.363	/
			1	0	Right Side	1880	0.642	0.36	22.5	22.37	1.030	0.662	/
			50	0	Right Side	1900	0.597	-0.32	23	22.6	1.096	0.655	/
			1	0	Bottom Side	1880	0.287	-3.34	22.5	22.37	1.030	0.296	/
			50	0	Bottom Side	1900	0.266	0.80	23	22.6	1.096	0.292	/
LTE Band 4	20M	QPSK	1	0	Front side	1732.5	0.366	1.68	23	22.63	1.089	0.399	2
			50	0	Front side	1745	0.348	0.21	22	21.69	1.074	0.374	/
			1	0	Back Side	1732.5	0.235	1.08	23	22.63	1.089	0.256	/
			50	0	Back Side	1745	0.221	-2.83	22	21.69	1.074	0.237	/
			1	0	Right Side	1732.5	0.321	-3.21	23	22.63	1.089	0.241	/
			50	0	Right Side	1745	0.298	-2.81	22	21.69	1.074	0.320	/
			1	0	Bottom Side	1732.5	0.251	0.13	23	22.63	1.089	0.273	/
			50	0	Bottom Side	1745	0.240	-1.67	22	21.69	1.074	0.258	/
LTE Band 5	10M	QPSK	1	0	Front side	836.5	0.183	-0.69	23	22.63	1.089	0.199	3
			25	0	Front side	836.5	0.174	-3.54	22	21.92	1.019	0.177	/
			1	0	Back Side	836.5	0.085	3.98	23	22.63	1.089	0.093	/
			25	0	Back Side	836.5	0.076	-1.36	22	21.92	1.019	0.077	/
			1	0	Right Side	836.5	0.169	1.18	23	22.63	1.089	0.184	/
			25	0	Right Side	836.5	0.145	2.71	22	21.92	1.019	0.148	/
			1	0	Bottom Side	836.5	0.096	0.51	23	22.63	1.089	0.105	/
			25	0	Bottom Side	836.5	0.084	-1.40	22	21.92	1.019	0.086	/



LTE Band 7	10M	QPSK	1	0	Front side	2680	0.727	-2.31	22	21.94	1.014	0.737	4
			50	0	Front side	2535	0.695	-3.98	21	20.95	1.012	0.703	/
			1	0	Back Side	2680	0.332	0.37	22	21.94	1.014	0.337	/
			50	0	Back Side	2535	0.299	-0.80	21	20.95	1.012	0.302	/
			1	0	Right Side	2680	0.621	1.93	22	21.94	1.014	0.630	/
			50	0	Right Side	2535	0.597	-3.77	21	20.95	1.012	0.604	/
			1	0	Bottom Side	2680	0.398	-1.56	22	21.94	1.014	0.404	/
			50	0	Bottom Side	2535	0.371	-0.52	21	20.95	1.012	0.375	/
LTE Band 12	10M	QPSK	1	0	Front side	704	0.784	2.75	23.5	23.01	1.119	0.878	/
			1	0	Front side	707.5	0.885	0.89	23.5	23.41	1.021	0.904	5
			1	0	Front side	711	0.830	-2.47	23.5	23.19	1.074	0.891	/
			25	0	Front side	711	0.864	-2.99	23	22.61	1.094	0.945	/
			1	0	Back Side	707.5	0.354	1.46	23.5	23.41	1.021	0.361	/
			25	0	Back Side	711	0.332	-1.67	23	22.61	1.094	0.363	/
			1	0	Right Side	707.5	0.698	2.32	23.5	23.41	1.021	0.713	/
			25	0	Right Side	711	0.652	-3.41	23	22.61	1.094	0.713	/
			1	0	Bottom Side	707.5	0.378	-0.45	23.5	23.41	1.021	0.386	/
			25	0	Bottom Side	711	0.325	-2.28	23	22.61	1.094	0.356	/
LTE Band 17	10M	QPSK	1	0	Front side	709	0.884	3.94	23	22.89	1.026	0.907	/
			1	0	Front side	710	0.942	2.77	23	22.94	1.014	0.955	6
			1	0	Front side	711	0.875	-2.47	23	22.93	1.016	0.889	/
			25	0	Front side	709	0.825	2.15	23	22.37	1.156	0.954	/
			25	0	Front side	710	0.830	3.97	23	22.52	1.117	0.927	/
			25	0	Front side	711	0.886	-1.47	23	22.56	1.107	0.980	/
			1	0	Back Side	710	0.448	-2.44	23	22.94	1.014	0.454	/
			25	0	Back Side	711	0.439	-1.24	23	22.56	1.107	0.486	/
			1	0	Right Side	710	0.751	-0.02	23	22.94	1.014	0.761	/
			25	0	Right Side	711	0.723	3.10	23	22.56	1.107	0.800	/
			1	0	Bottom Side	710	0.484	0.60	23	22.94	1.014	0.491	/
			25	0	Bottom Side	711	0.460	1.85	23	22.56	1.107	0.509	/



LTE Band 25	20M	QPSK	1	0	Front side	1860	1.074	2.66	22.5	22.14	1.086	1.167	/
			1	0	Front side	1882.5	1.056	2.44	22.5	22.45	1.012	1.068	/
			1	0	Front side	1905	1.161	-3.69	22.5	22.03	1.114	1.294	7
			50	0	Front side	1860	0.908	-0.48	22	21.47	1.130	1.026	/
			50	0	Front side	1882.5	0.984	-1.38	22	21.86	1.033	1.016	/
			50	0	Front side	1905	0.926	2.24	22	21.79	1.050	0.972	/
			1	0	Back Side	1882.5	0.599	-0.77	22.5	22.45	1.012	0.606	/
			50	0	Back Side	1882.5	0.581	-0.66	22	21.86	1.033	0.600	/
			1	0	Right Side	1882.5	0.854	0.93	22.5	22.45	1.012	0.864	/
			50	0	Right Side	1882.5	0.803	-1.26	22	21.86	1.033	0.829	/
			1	0	Bottom Side	1882.5	0.687	0.84	22.5	22.45	1.012	0.695	/
			50	0	Bottom Side	1882.5	0.665	-2.75	22	21.86	1.033	0.687	/
LTE Band 26	15M	QPSK	1	0	Front side	831.5	0.259	0.16	23.5	23.08	1.102	0.285	8
			36	0	Front side	831.5	0.224	-1.40	22.5	22.13	1.089	0.244	/
			1	0	Back Side	831.5	0.135	2.94	23.5	23.08	1.102	0.149	/
			36	0	Back Side	831.5	0.122	-0.57	22.5	22.13	1.089	0.133	/
			1	0	Right Side	831.5	0.230	1.89	23.5	23.08	1.102	0.253	/
			36	0	Right Side	831.5	0.214	1.68	22.5	22.13	1.089	0.233	/
			1	0	Bottom Side	831.5	0.142	0.46	23.5	23.08	1.102	0.156	/
			36	0	Bottom Side	831.5	0.130	-1.85	22.5	22.13	1.089	0.142	/

Note:

- The test separation of all above table is 5mm.
- Per KDB 447498 D04, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - Scaled SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
- When the user enables the personal Wireless router functions for the handsets, actual operations include simultaneous transmission of both the Wi-Fi transmitting frequency and thus cannot be evaluated for SAR under actual use conditions. The "Portable Hotspot" feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.



Repeated SAR

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn- up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR(W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Front side	1860	0.752	-2.56	22.5	21.99	0.846	-
			1	0	Front side	1880	0.842	-1.48	22.5	22.37	0.868	-
			1	0	Front side	1900	0.738	1.82	22.5	21.98	0.832	-
LTE Band 12	20M	QPSK	1	0	Front side	704	0.784	0.85	23.5	23.01	0.878	-
			1	0	Front side	707.5	0.885	0.33	23.5	23.41	0.904	-
			1	0	Front side	711	0.83	-1.37	23.5	23.19	0.891	-
LTE Band 17	10M	QPSK	1	0	Front side	709	0.884	-0.22	23	22.89	0.907	-
			1	0	Front side	710	0.942	-2.45	23	22.94	0.955	-
			1	0	Front side	711	0.875	-3.88	23	22.93	0.889	-
			25	0	Front side	709	0.825	-4.00	23	22.37	0.954	-
			25	0	Front side	710	0.83	3.87	23	22.52	0.927	-
			25	0	Front side	711	0.886	1.00	23	22.56	0.980	-
LTE Band 25	20M	QPSK	1	0	Front side	1860	1.074	-0.63	22.5	22.14	1.167	-
			1	0	Front side	1882.5	1.056	1.76	22.5	22.45	1.068	-
			1	0	Front side	1905	1.161	1.75	22.5	22.03	1.294	-
			50	0	Front side	1860	0.908	3.59	22	21.47	1.026	-
			50	0	Front side	1882.5	0.984	-1.36	22	21.86	1.016	-
			50	0	Front side	1905	0.926	-3.78	22	21.79	0.972	-



Repeated SAR measurement

Band	BW (MHz)	Mod.	RB Size	RB offset	Test Position	Freq.	Original Measured SAR 1g(W/kg) 1g (W/Kg)	1 st Repeated SAR 1g	Ratio	Original Measured	2nd Repeated SAR 1g	Ratio
LTE Band 2	20M	QPSK	1	0	Front side	1860	0.752	0.747	1.006			
			1	0	Front side	1880	0.842	0.837	1.006			
			1	0	Front side	1900	0.738	0.708	1.042			
LTE Band 12	20M	QPSK	1	0	Front side	704	0.784	0.746	1.050			
			1	0	Front side	707.5	0.885	0.853	1.037			
			1	0	Front side	711	0.83	0.792	1.048			
LTE Band 17	10M	QPSK	1	0	Front side	709	0.884	0.878	1.007			
			1	0	Front side	710	0.942	0.936	1.006			
			1	0	Front side	711	0.875	0.866	1.010			
			25	0	Front side	709	0.825	0.814	1.013			
			25	0	Front side	710	0.83	0.789	1.052			
			25	0	Front side	711	0.886	0.874	1.014			
LTE Band 25	20M	QPSK	1	0	Front side	1860	1.074	1.036	1.037			
			1	0	Front side	1882.5	1.056	1.051	1.005			
			1	0	Front side	1905	1.161	1.128	1.029			
			50	0	Front side	1860	0.908	0.906	1.002			
			50	0	Front side	1882.5	0.984	0.958	1.027			
			50	0	Front side	1905	0.926	0.882	1.050			

Note:

1. Per KDB 865664 D01, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8W/Kg$.
2. Per KDB 865664 D01, if the ratio of largest to smallest SAR for the original and first repeated measurement is ≤ 1.2 and the measured SAR $< 1.45W/Kg$, only one repeated measurement is required.
3. Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is $\geq 1.45W/Kg$.
4. The ratio is the difference in percentage between original and repeated measured SAR.

**12.2 Simultaneous Multi-band Transmission Evaluation**

Application Simultaneous Transmission information:

Position	Simultaneous State
Body	LTE + Bluetooth

NOTE:

1. Bluetooth can't simultaneous transmission at the same time.
2. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
3. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
4. KDB 447498 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion: a) (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f (GHz) /x] W/kg for test separation distances≤ 50 mm; Where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR. b) 0.4W/Kg for 1-g SAR and 1.0W/Kg for 10-g SAR, when the separation distance is >50mm.

Estimated SAR		Maximum Average Power		Dis.	Frequency(GHz)	Stand alone SAR(1g) [W/kg]
		dBm	mW			
BT	Body	-0.5	0.891	5	2.48	0.037

Simultaneous Mode	Position	Mode	Max. 1-g SAR	1-g Sum SAR
			(W/kg)	(W/kg)
LTE + Bluetooth	Body	LTE	1.294	1.331
		Bluetooth	0.037	

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna.

When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR-1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR-1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.



13. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	MVG	SID750	SN 30/14 DIP0G750-331	2023.07.04	2026.07.03
835MHz Dipole	MVG	SID835	SN 30/14 DIP0G835-332	2023.07.04	2026.07.03
1800MHz Dipole	MVG	SID1800	5023-DIP1G800- 747	2023.12.20	2026.12.19
1900MHz Dipole	MVG	SID1900	SN 06/23 DIP1G900-226	2023.09.14	2026.09.13
2600MHz Dipole	MVG	SID2600	SN 30/14 DIP2G600-336	2023.07.04	2026.07.03
E-Field Probe	MVG	SSE2	SN 08/21 EPOG352	2024.09.18	2025.09.17
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2024.09.18	2025.09.17
Antenna	MVG	ANTA3	SN 07/13 ZNTA52	N/A	N/A
Phantom1	MVG	SAM	SN 32/14 SAM115	N/A	N/A
Phantom3	MVG	SAM	SN 21/21 ELLI48	N/A	N/A
Phone holder	MVG	N/A	SN 32/14 MSH97	N/A	N/A
Laptop holder	MVG	N/A	SN 32/14 LSH29	N/A	N/A
Attenuator	Agilent	99899	DC-18GHz	N/A	N/A
Attenuator	Agilent	HXT-10-8-SMA	240327017	2025-02-22	2026-02-21
Directional coupler	Narda	4226-20	3305	N/A	N/A
Directional coupler	Xi'an Xingbo	XBOH-OA08- 20dB	211123-4-3	2025-02-22	2026-02-21
Network Analyzer	Agilent	E5071C	MY46520378	2024-09-25	2025-09-26
Multi Meter	Keithley	Multi Meter 2000	4050073	2024-09-25	2025-09-26
Signal Generator	Agilent	N5182A	MY50140530	2024-09-25	2025-09-26
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2025-02-22	2026-02-21
Wireless Communication Test Set	R&S	CMW500	156324	2024-09-25	2025-09-26
Power Amplifier	DESAY	ZHL-42W	9638	2024-09-25	2025-09-26
Power Meter	R&S	NRP	100510	2024-09-25	2025-09-26
Power Sensor	R&S	NRP-Z11	101919	2024-09-25	2025-09-26
Power Sensor	Keysight	U2021XA	MY56280002	2024-09-25	2025-09-26
Temperature hygrometer	SuWei	SW-108	N/A	2024.10.15	2025.10.14
Thermograph	Elitech	RC-4	S/N EF7176501537	2024.10.15	2025.10.14



Appendix A. System Validation Plots

System Performance Check Data (750MHz)

Type: Phone measurement (Complete)

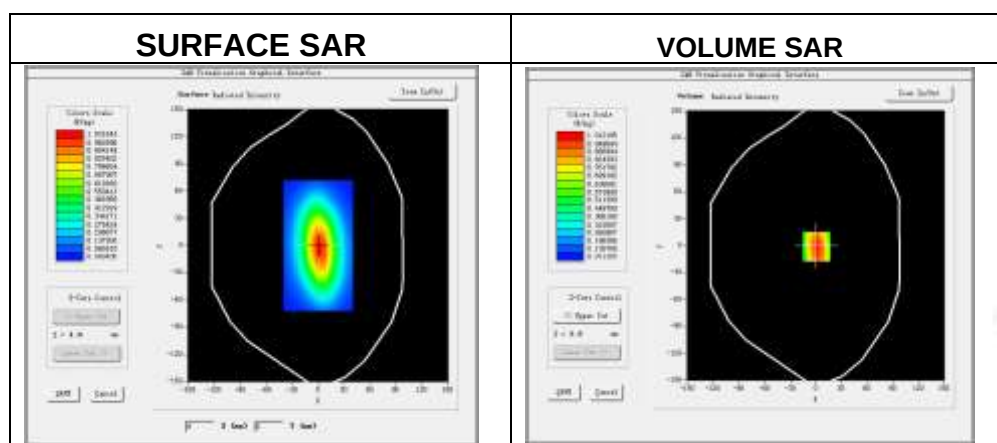
Area scan resolution: dx=8mm, dy=8mm+

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2025-03-15

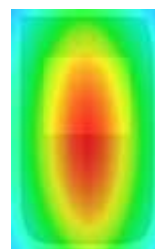
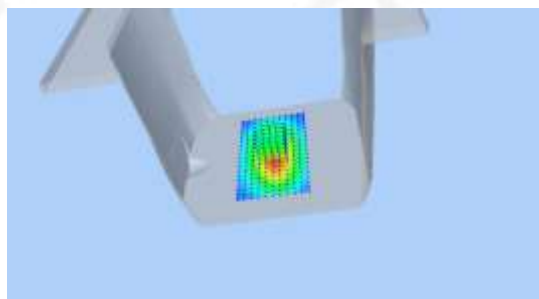
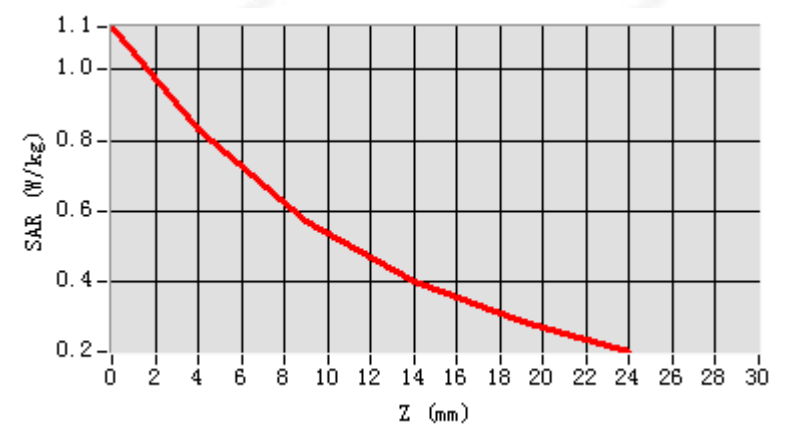
Experimental conditions

Phantom	Validation plane
Device Position	Dipole
Band	750MHz
Channels	Middle
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity	42.79
Conductivity (S/m)	0.88
Probe	SN 08/21 EPGO352
ConvF	1.56
Crest factor:	1:1



Maximum location: X=-7.00, Y=-1.00

SAR 10g (W/Kg)	0.530309
SAR 1g (W/Kg)	0.855658



**System Performance Check Data (835MHz)**

Type: Phone measurement (Complete)

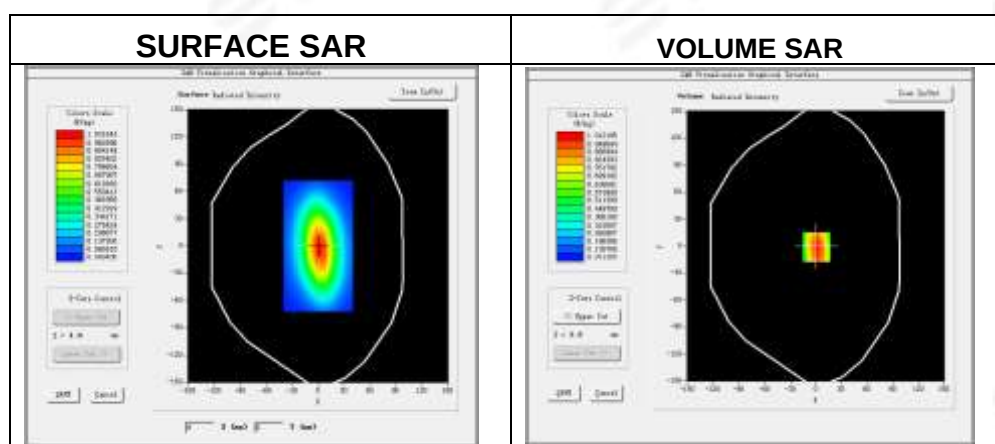
Area scan resolution: dx=8mm, dy=8mm+

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

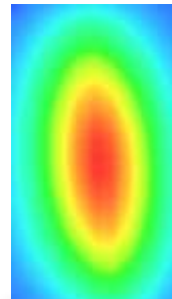
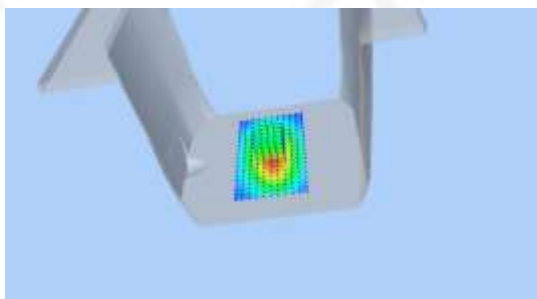
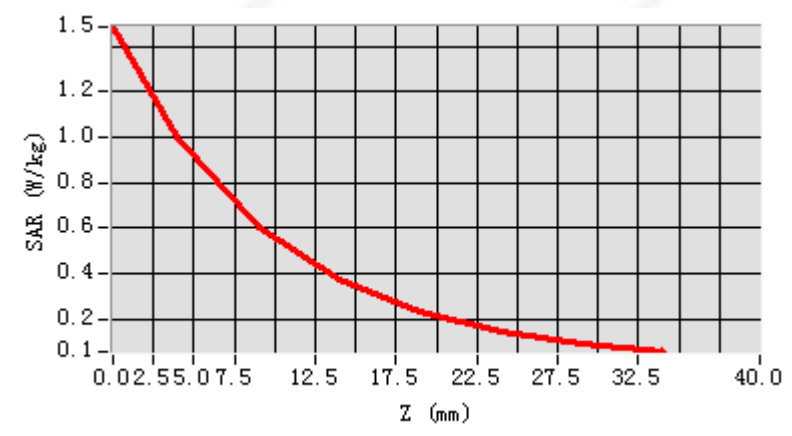
Date of measurement: 2025-03-16

Experimental conditions

Phantom	Validation plane
Device Position	Dipole
Band	835MHz
Channels	Middle
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity	41.55
Conductivity (S/m)	0.94
Probe	SN 08/21 EPG0352
ConvF	1.44
Crest factor:	1:1

**Maximum location: X=-7.00, Y=-1.00**

SAR 10g (W/Kg)	0.629395
SAR 1g (W/Kg)	0.962295



**System Performance Check Data(1800MHz)**

Type: Phone measurement (Complete)

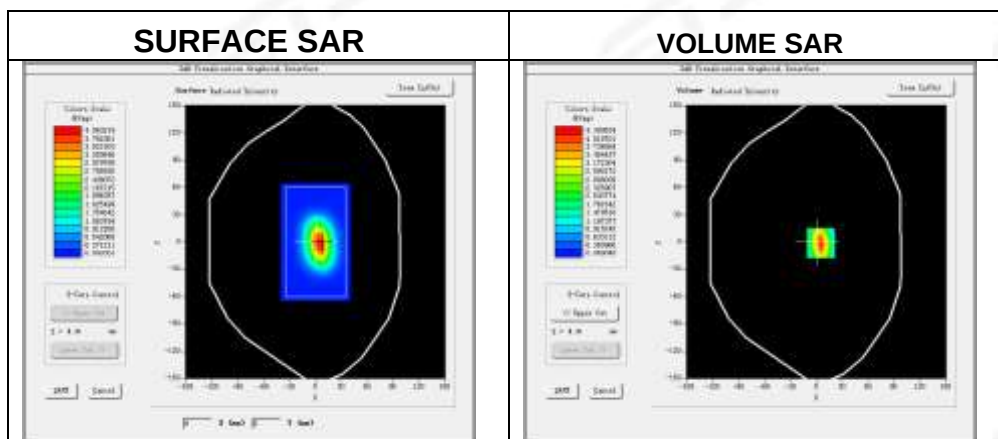
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

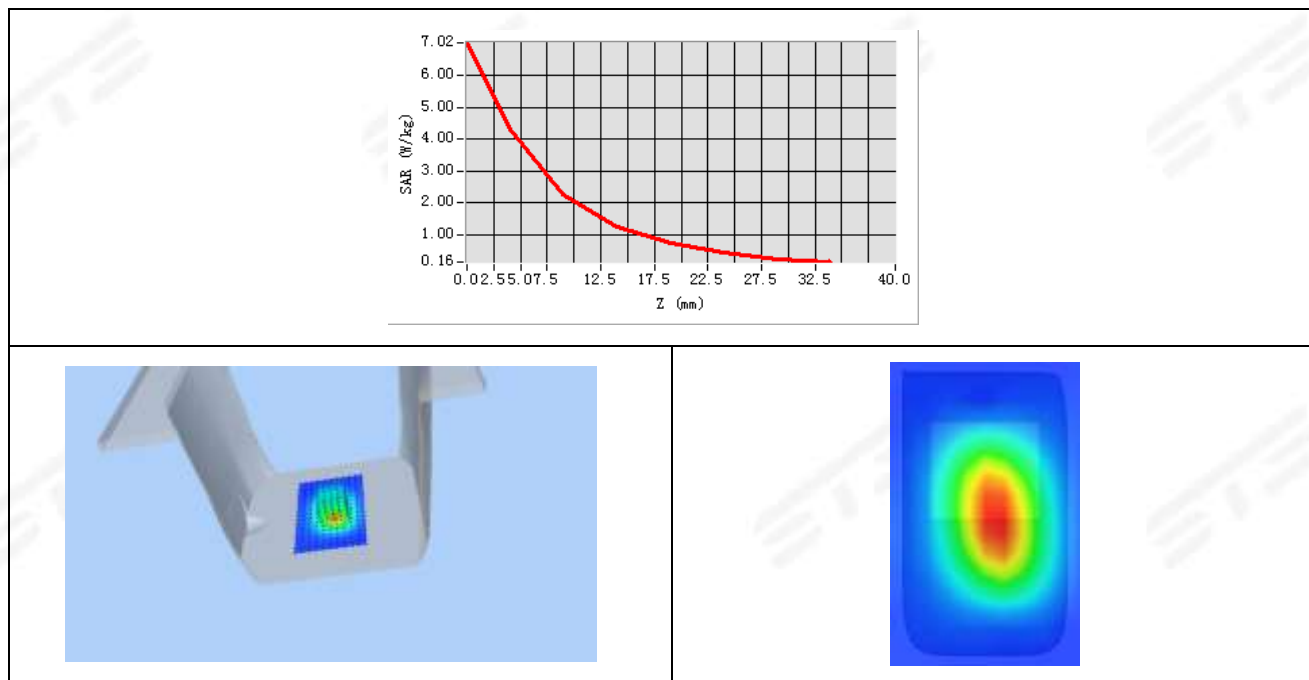
Date of measurement: 2025-03-17

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	1800MHz
Channels	Middle
Signal	CW
Frequency (MHz)	1800MHz
Relative permittivity	40.83
Conductivity (S/m)	1.39
Probe	SN 08/21 EPGO352
ConvF	1.58
Crest factor:	1:1

**Maximum location: X=5.00, Y=1.00**

SAR 10g (W/Kg)	1.891422
SAR 1g (W/Kg)	3.715195



**System Performance Check Data (1900MHz)**

Type: Phone measurement (Complete)

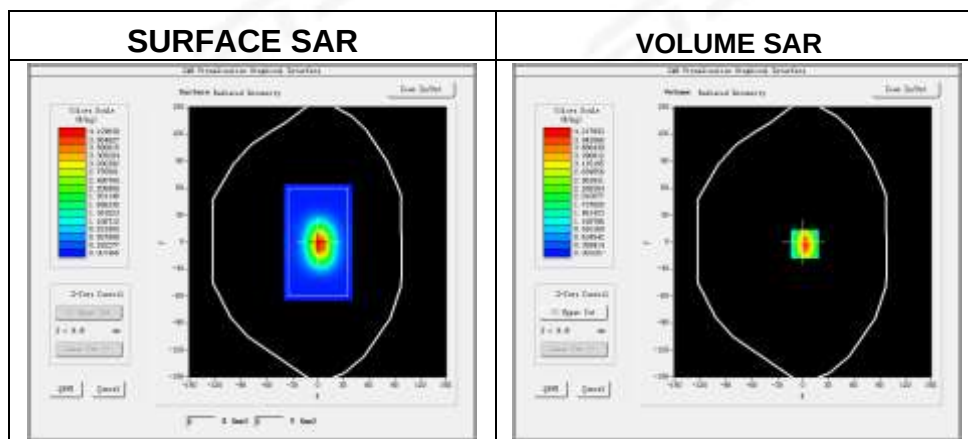
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

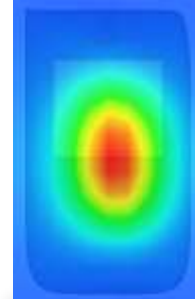
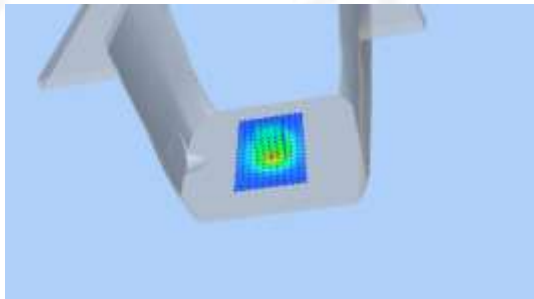
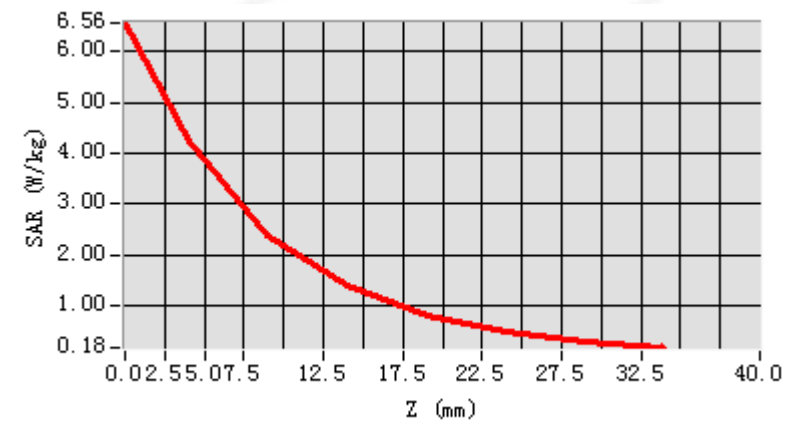
Date of measurement: 2025-03-18

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	1900MHz
Channels	Middle
Signal	CW
Frequency (MHz)	1900MHz
Relative permittivity	41.30
Conductivity (S/m)	1.37
Probe	SN 08/21 EPGO352
ConvF	1.72
Crest factor:	1:1

**Maximum location: X=3.00, Y=-2.00**

SAR 10g (W/Kg)	1.961568
SAR 1g (W/Kg)	3.805353



**System Performance Check Data (2600MHz)**

Type: Phone measurement (Complete)

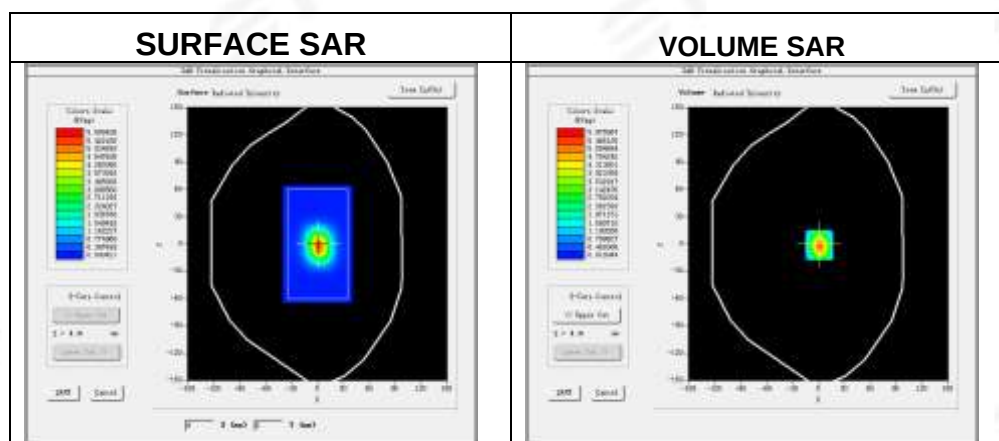
Area scan resolution: dx=8mm, dy=8mm

Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

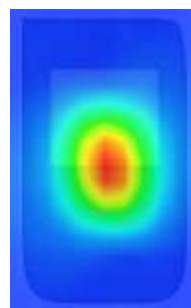
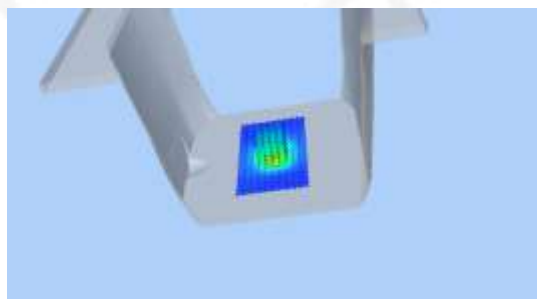
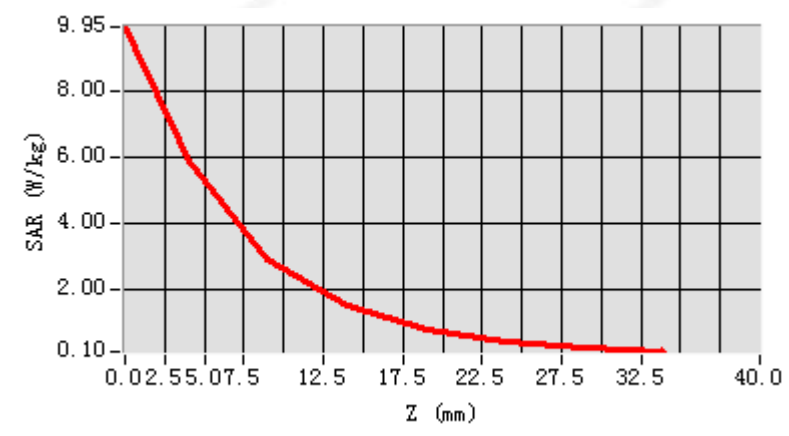
Date of measurement: 2025-03-19

Experimental conditions.

Phantom	Validation plane
Device Position	Dipole
Band	2600MHz
Channels	Middle
Signal	CW
Frequency (MHz)	2600
Relative permittivity	40.08
Conductivity (S/m)	1.98
Probe	SN 08/21 EPGO352
ConvF	1.74
Crest factor:	1:1

**Maximum location: X=1.00, Y=0.00**

SAR 10g (W/Kg)	2.582431
SAR 1g (W/Kg)	5.828937



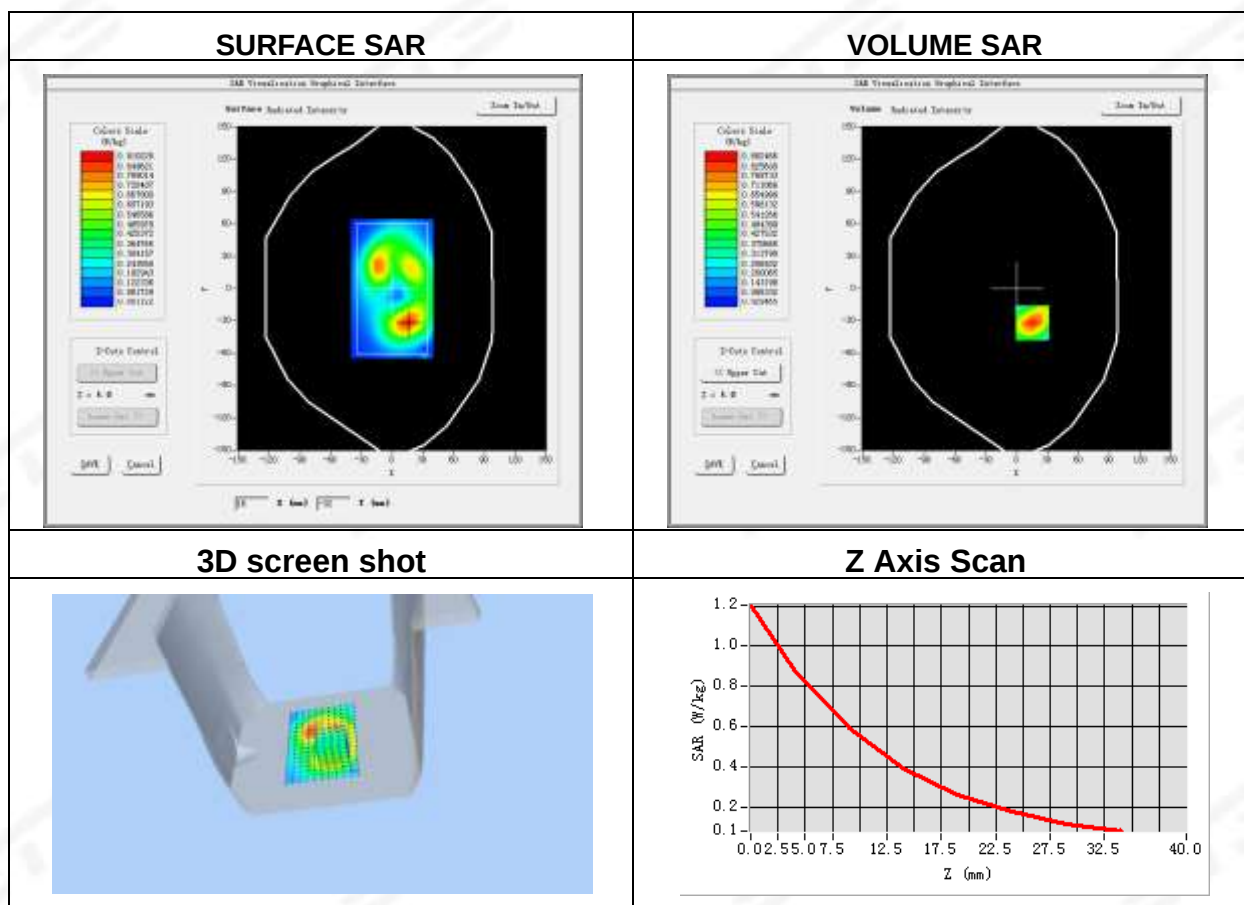
**Appendix B. SAR Test Plots****Plot 1: DUT: GPS Tracker; EUT Model: TRKM110-C**

Test Date	2025-03-18
ConvF	1.58
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 2(RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1860
Relative permittivity (real part)	40.54
Conductivity (S/m)	1.44

Maximum location: X=15.00, Y=-32.00

SAR Peak: 1.20 W/kg

SAR 10g (W/Kg)	0.492397
SAR 1g (W/Kg)	0.842099



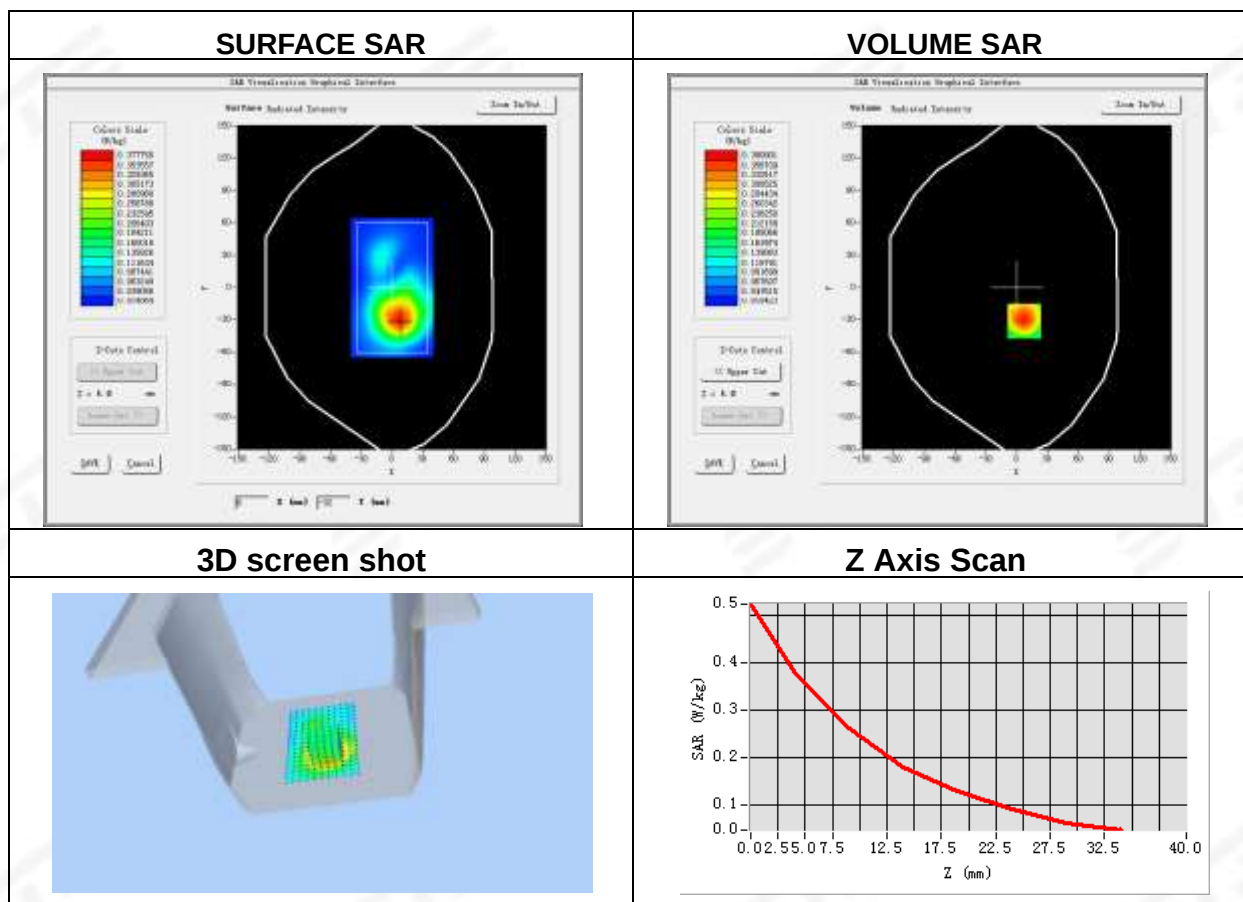

Plot 2: DUT: GPS Tracker; EUT Model: TRKM110-C

Test Date	2025-03-17
ConvF	1.58
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 4 (RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1732.5
Relative permittivity (real part)	41.16
Conductivity (S/m)	1.39

Maximum location: X=7.00, Y=-31.00

SAR Peak: 0.52 W/kg

SAR 10g (W/Kg)	0.231718
SAR 1g (W/Kg)	0.365650



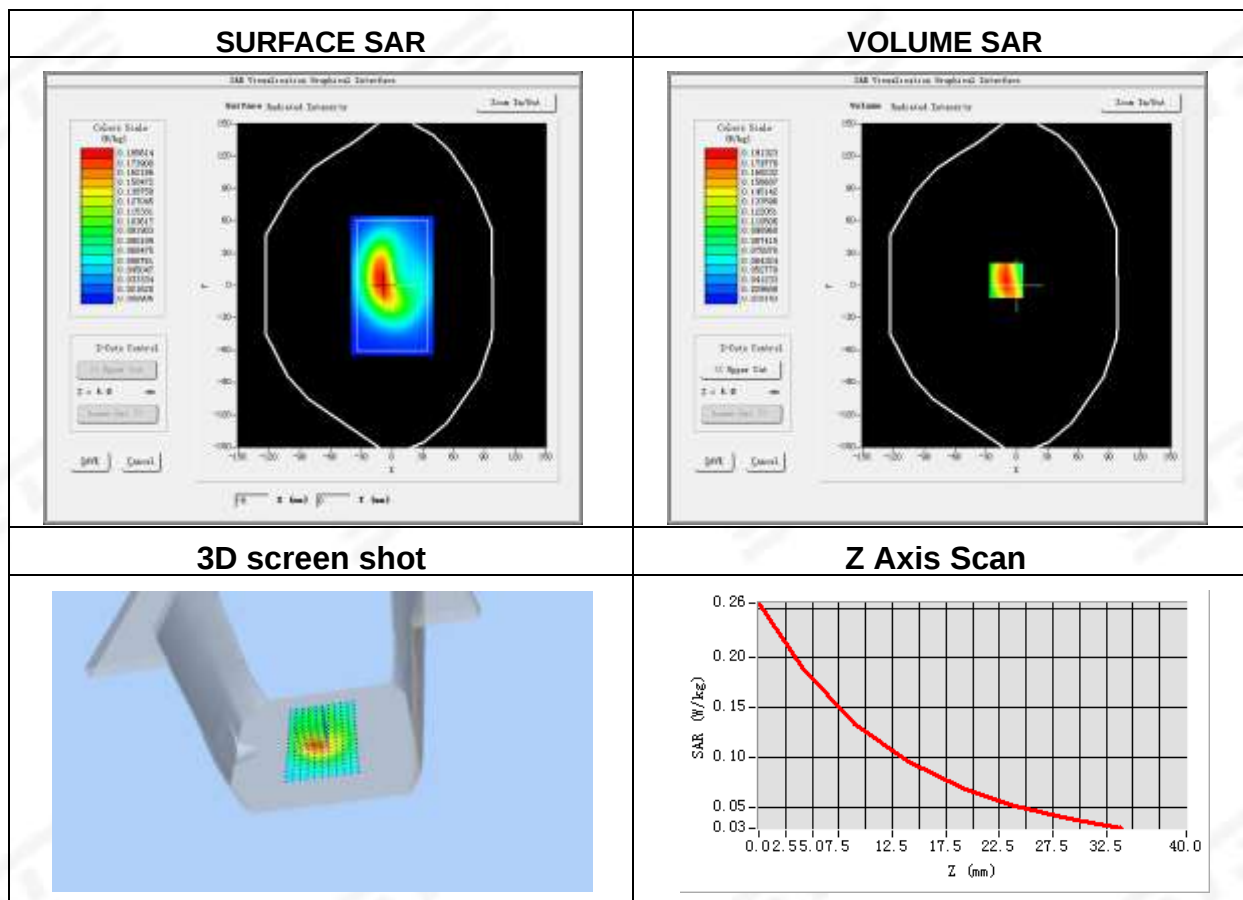

Plot 3: DUT: GPS Tracker; EUT Model: TRKM110-C

Test Date	2025-03-16
ConvF	1.44
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 5 (RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	836.5
Relative permittivity (real part)	41.09
Conductivity (S/m)	0.88

Maximum location: X=-10.00, Y=5.00

SAR Peak: 0.26 W/kg

SAR 10g (W/Kg)	0.118753
SAR 1g (W/Kg)	0.182735





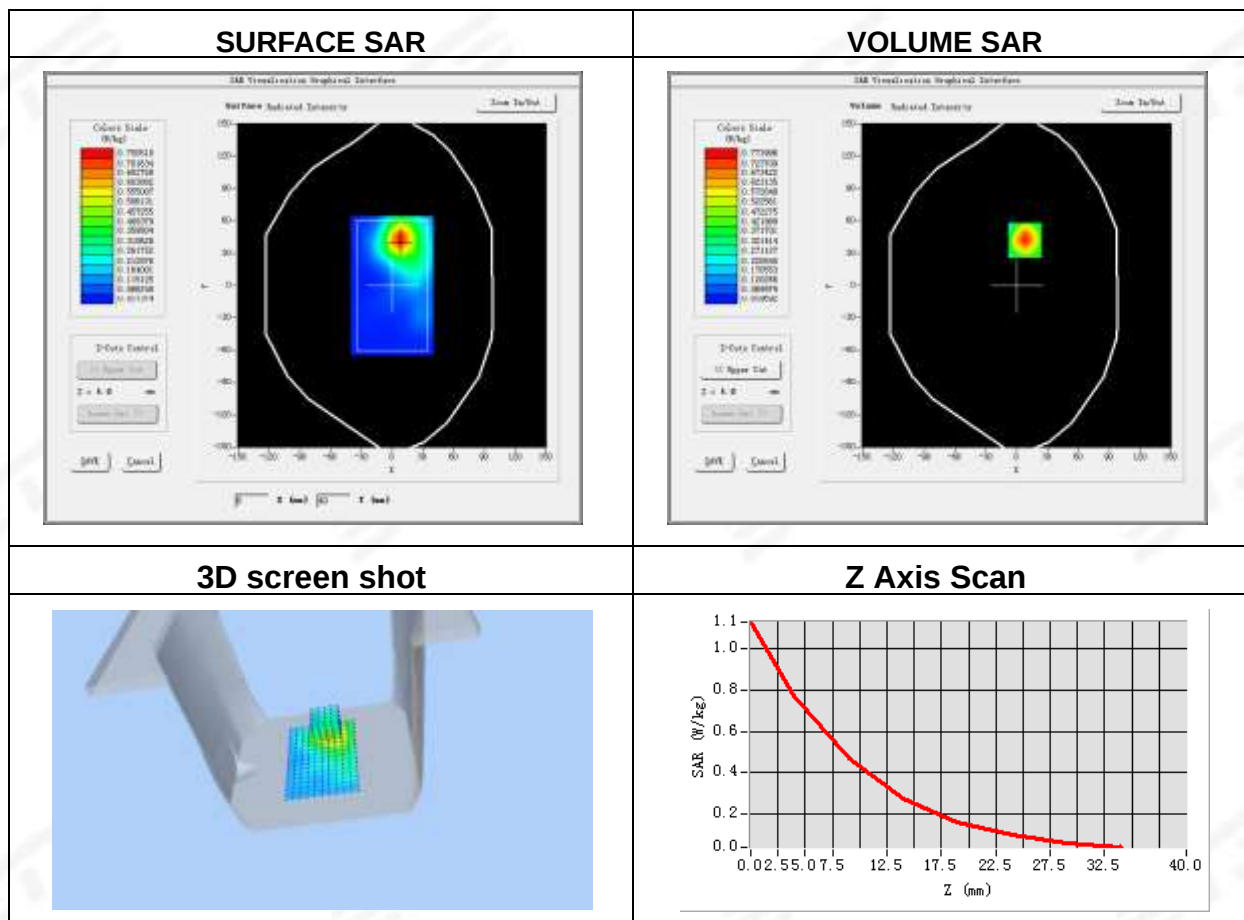
Plot 4: DUT: GPS Tracker; EUT Model: TRKM110-C

Test Date	2025-03-19
ConvF	1.74
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 7 (RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2680
Relative permittivity (real part)	39.89
Conductivity (S/m)	2.08

Maximum location: X=8.00, Y=42.00

SAR Peak: 1.14 W/kg

SAR 10g (W/Kg)	0.389216
SAR 1g (W/Kg)	0.726611





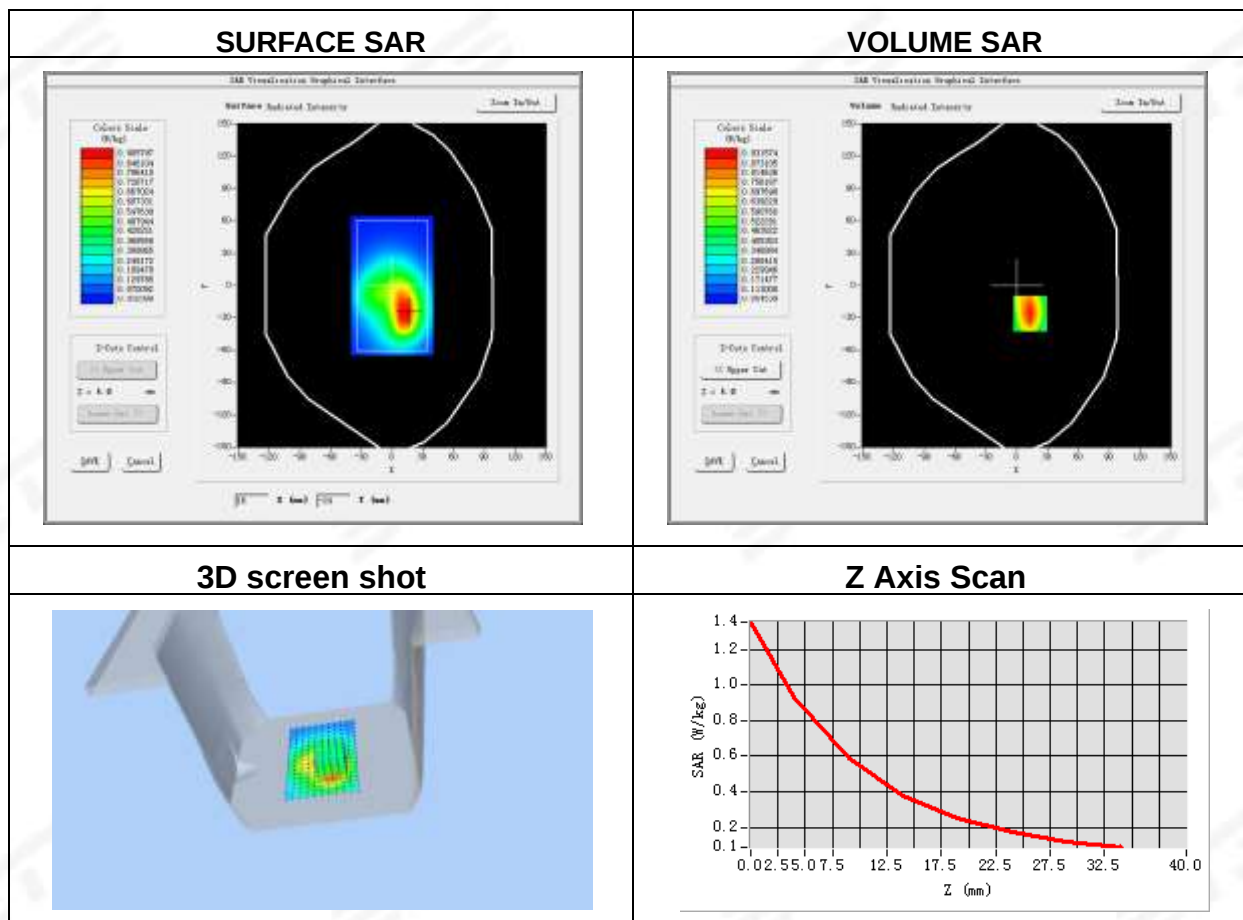
Plot 5: DUT: GPS Tracker; EUT Model: TRKM110-C

Test Date	2025-03-15
ConvF	1.44
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 12 (RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	707.5
Relative permittivity (real part)	42.18
Conductivity (S/m)	0.92

Maximum location: X=13.00, Y=-26.00

SAR Peak: 1.39 W/kg

SAR 10g (W/Kg)	0.522922
SAR 1g (W/Kg)	0.885291





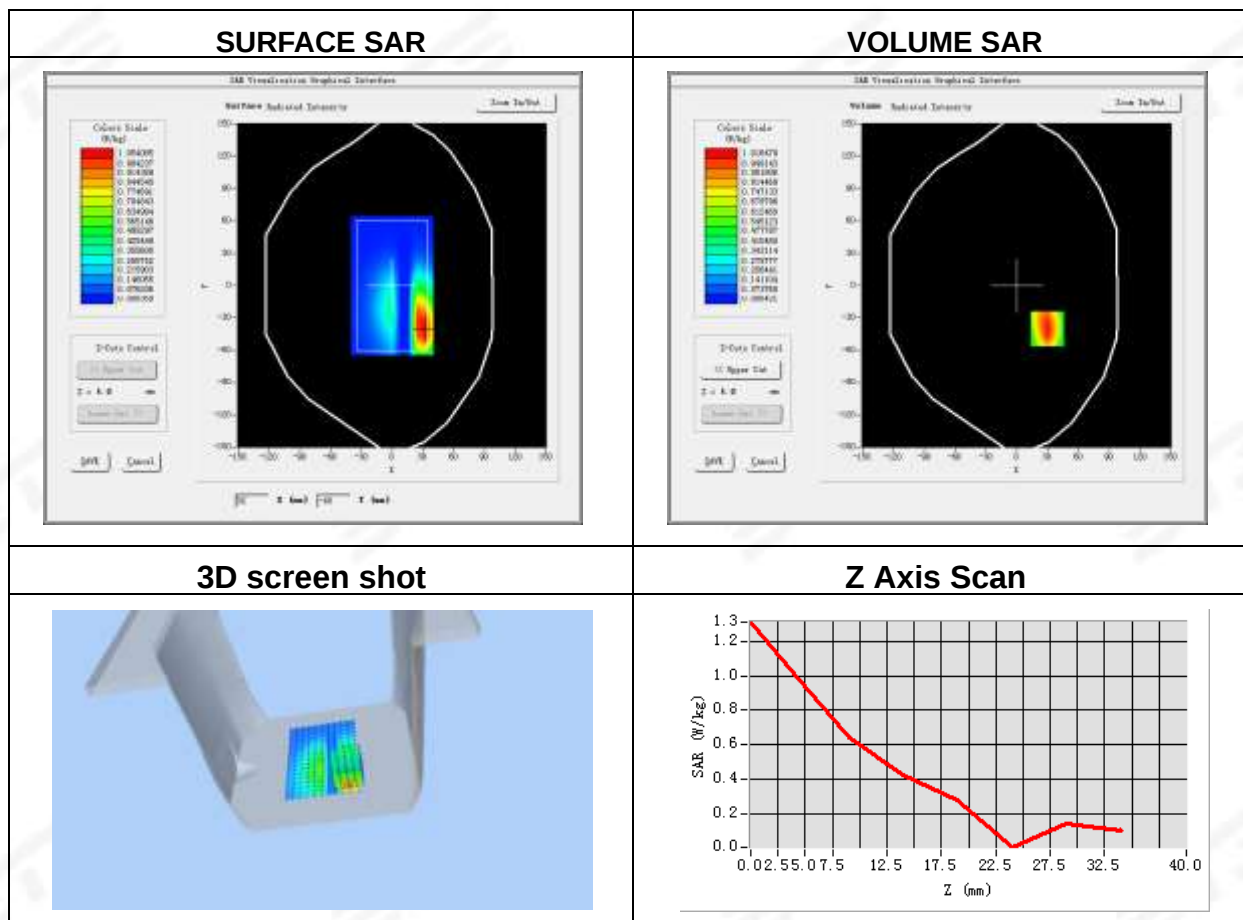
Plot 6: DUT: GPS Tracker; EUT Model: TRKM110-C

Test Date	2025-03-15
ConvF	1.44
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 17 (RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	709
Relative permittivity (real part)	42.45
Conductivity (S/m)	0.86

Maximum location: X=30.00, Y=-40.00

SAR Peak: 1.37 W/kg

SAR 10g (W/Kg)	0.565504
SAR 1g (W/Kg)	0.941961





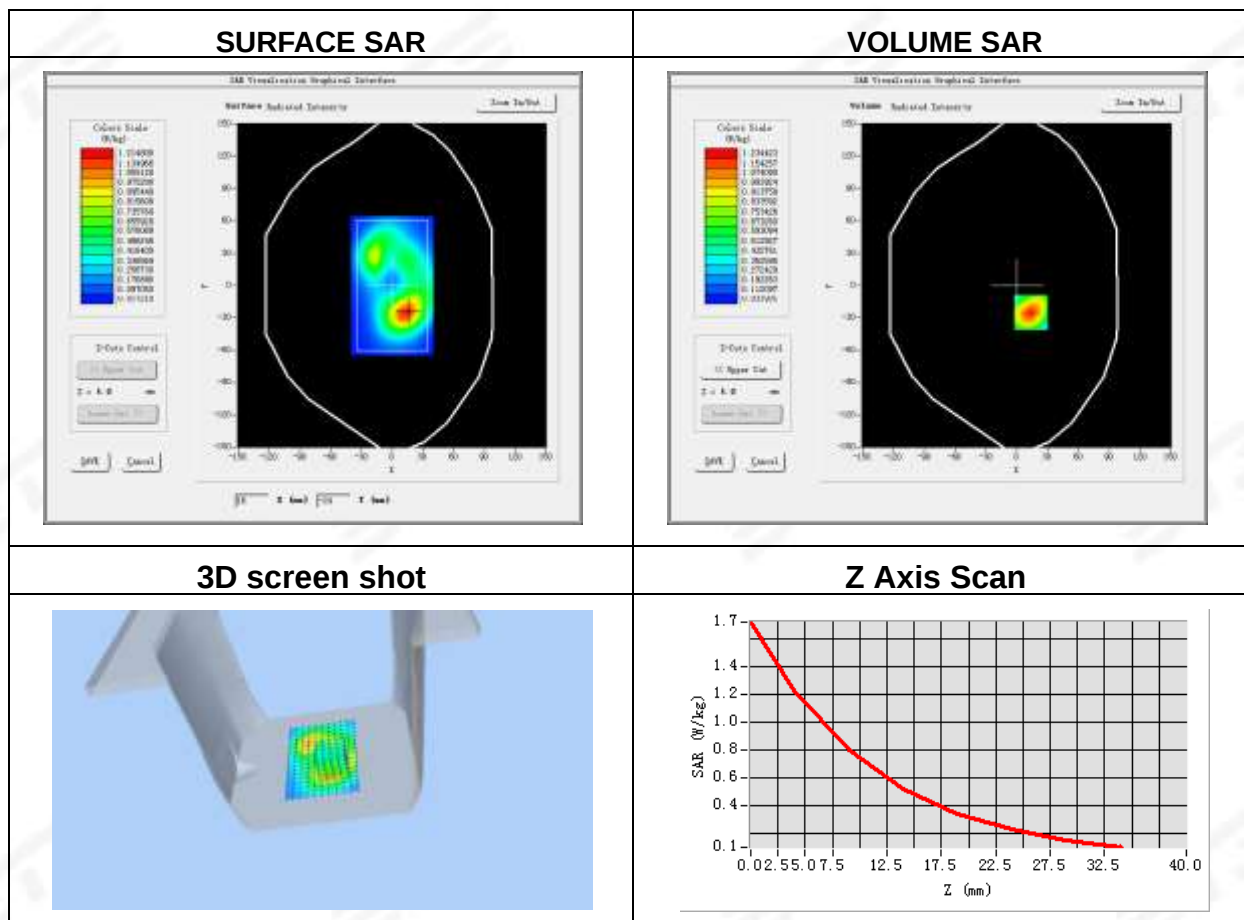
Plot 7: DUT: GPS Tracker; EUT Model: TRKM110-C

Test Date	2025-03-18
ConvF	1.44
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 25 (RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1905
Relative permittivity (real part)	40.70
Conductivity (S/m)	1.45

Maximum location: X=14.00, Y=-25.00

SAR Peak: 1.72 W/kg

SAR 10g (W/Kg)	0.672599
SAR 1g (W/Kg)	1.161134





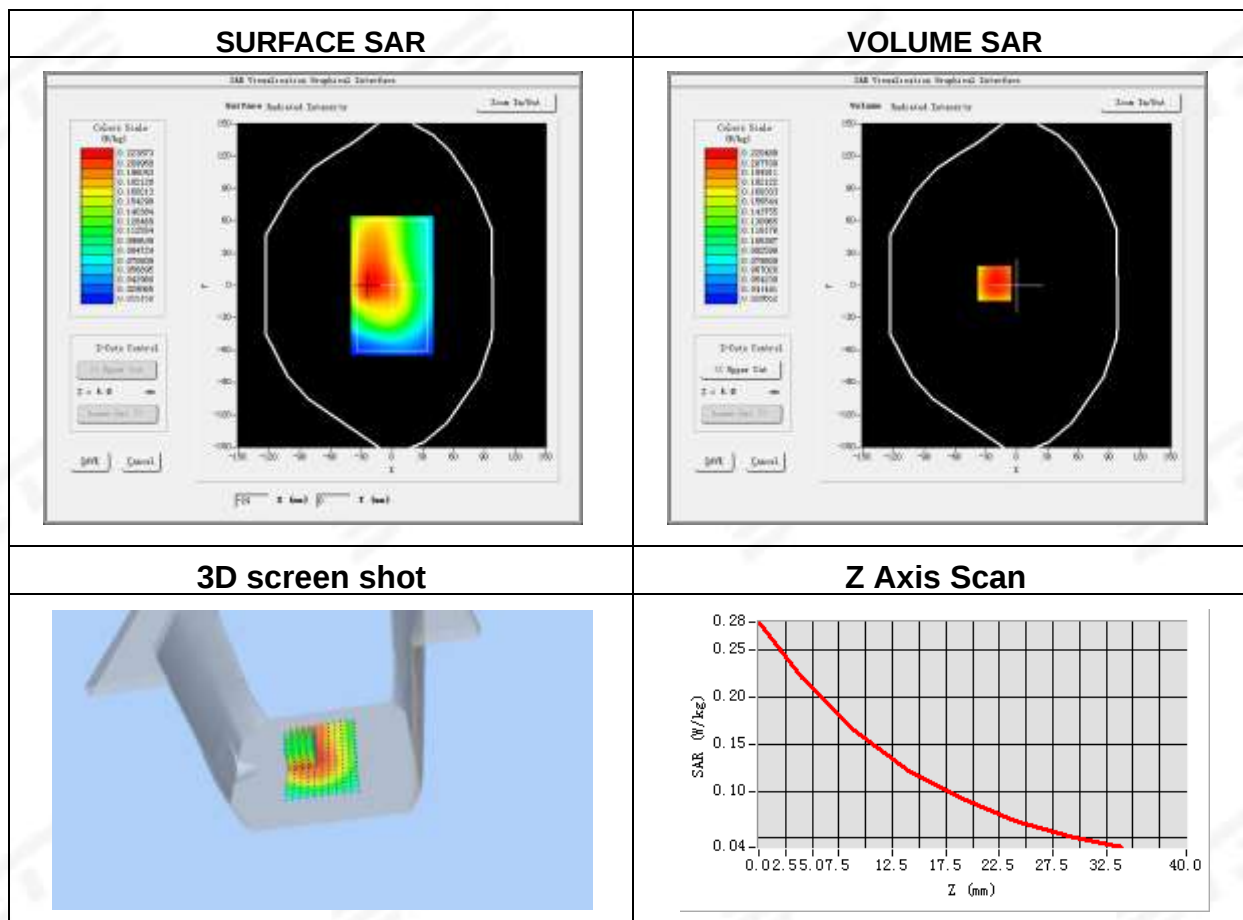
Plot 8: DUT: GPS Tracker; EUT Model: TRKM110-C

Test Date	2025-03-16
ConvF	1.72
Probe	SN 08/21 EPGO352
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7, dx=8mm, dy=8mm, dz=5mm
Phantom	Validation plane
Device Position	Back Side
Band	LTE Band 26 (RB 1)
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	831.5
Relative permittivity (real part)	42.01
Conductivity (S/m)	0.94

Maximum location: X=-22.00, Y=2.00

SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)	0.174635
SAR 1g (W/Kg)	0.258963





Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※